AID Evaluation Special Study No. 37

Development Management in Africa:
The Case of the Agriculture Analysis and Planning Project in Liberia

BEST AVAILABLE

December 1985

Agency for International Development (AID)

Washington, D.C. 20523

PN-AAL-070

BEST AVAILABLE

DEVELOPMENT MANAGEMENT IN AFRICA: THE CASE OF THE AGRICULTURE ANALYSIS AND PLANNING PROJECT IN LIBERIA

AID EVALUATION SPECIAL STUDY NO. 37

by

Chris Hermann, Team Leader
(Bureau for Program and Policy Coordination,
Center for Development Information and Evaluation, AID)

Margaret Shaw, Human Resources Development Officer
(Technical Resources Division, AID)

John Hannah, Management Specialist
(Development Alternatives, Inc.)

U.S. Agency for International Development

December 1985

The views and interpretations expressed in this report are those of the authors and should not be attributed to the Agency for International Development.

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

Appendixes

ACKNOWLEDGMENTS

The team compliments Mr. Haven North, Associate Assistant Administrator of the Agency for International Development's Center for Development Information and Evaluation (CDIE), for having the foresight and interest to approve funding for this series of studies on development management. Recognition must be given to Mr. Irving Rosenthal, the CDIE Sector Coordinator for Development Management, who provided the intellectual leadership for the entire staff effort as well as direction of the details required to organize this large study effort.

PREFACE

The limited management capacity of developing country personnel and institutions is a common problem affecting the success of development projects. Although this problem is often identified, there is little understanding of what "capacity to manage" means or what solutions are possible to enhance this capacity. The Bureau for Program and Policy Coordination (PPC), Center for Development Information and Evaluation (CDIE), of the Agency for International Development (AID) has undertaken a series of studies to better understand the nature of these development management problems and to assess the impact of some interventions through which AID and host country project managers have tried to enhance that capacity.

A worldwide assessment of development management would lead to lessons learned at too general a level to be operationally useful. It was therefore decided to phase the study geographically, starting with Africa, where the management problems seem to be the greatest and where lessons learned can have fairly immediate benefits. It was also decided, for methodological reasons, to limit the studies to one sector, that of agriculture and rural development. This study of the Agriculture Analysis and Planning Project in Liberia was conducted in October 1984 as part of the African phase of the Special Studies series on development management. Other African project studies were carried out in Kenya, Niger, Lesotho, Zaire, and Senegal.

This series began in September 1984, when all team members attended a workshop on development management organized by CDIE and the AID Africa Bureau and held at Easton, Maryland. The six country studies were carried out between September 1984 and March 1985. A workshop to review the findings of the study teams was held in May 1985 in Washington, D.C. Synthesis reports will summarize and analyze the results of the studies and related workshops and relate them to program, policy, design, and implementation requirements.

A conceptual framework was developed for the six studies during the Easton workshop. This framework provided the study teams with a generic scope of work that focused on one organizing question and five broad management subject matter areas. The organizing question had to do with the organizational level and institutional nature of project direction. That is, what are the differences in management problems at the various organizational levels at which responsibility for management decisions is located and from which the project is principally directed? The five management subject matter areas are as follows:

1. Contextual factors relating to management. This refers to the context outside the boundaries of a project,

which affects the way the project must be managed. This includes the impact of local, physical, environmental, political, and cultural factors, as well as global economic and political events. National economic policy and the nature of project technology must also be considered.

2. Organization, structure, and institutional arrangements. This refers to the administrative milieu within which the project operates. This includes consideration of the formal and informal working relations among organizations and people associated with the project--government, private organizations and parastatals, beneficiaries, donor agencies, and private voluntary organizations (PVOs)--as well as individual and institutional understanding of the goals of the project.

3. Administrative process changes. This refers to administrative processes such as authority and decision-making, particularly those that may differ from those in the United States. The evaluation should focus on how U.S. business and public processes may or may not be applicable to development management.

4. Resource input management. This refers to problems and techniques for improving financial, commodity, and logistics management of other project inputs. The AID Africa Bureau is particularly concerned with improving financial management.

5. Human resources management. This refers to concerns with the skills, behavioral considerations, attitudes, and management capacity of the people who are part of and who will benefit from the project. The study teams were to look at project components specifically designed to enhance the capacity of leaders, mid-level managers, technicians, and project beneficiaries to plan, implement, and otherwise manage the project.

SUMMARY

The Agriculture Analysis and Planning Project (669-0137) and its predecessor project, the Agriculture Development Program (669-0123), have contributed to improvements in the management capability of the Liberian Ministry of Agriculture (MOA). The principal management interventions of the projects were (1) technology transfer, in the form of sector planning and the data collection and analysis systems this required; (2) staff development through long- and short-term participant training and in-country training; and (3) organizational and operational changes effected through an attempted sector plan.

The central objective of these projects was to develop MOA's capability for the data collection and analysis required for formulating a sector plan that would coordinate and direct agricultural programs and investments. Although sector planning has not been institutionalized in MOA, the projects have achieved some limited success in key areas of potential importance to improved management within the ministry. These include (1) establishment of a basic capability to collect and analyze primary agricultural data in the Statistics and Planning Divisions of the MOA Planning Department, which previously did not exist; (2) training in agricultural economics and statistics for approximately 50 MOA staff, the majority of whom are currently employed in MOA or in the agriculture sector; and (3) reorganization of MOA so that its internal structure might better support sector planning should this approach be accepted fully by the ministry. A very important function of the project has been to provide a base of support to the Statistics and Planning Divisions during a period when such support was not available from MOA itself. This was not an anticipated output of the project.

Clearly, much remains to be done in each of these areas. Data collection and analysis capabilities are highly tenuous and depend on continued support from technical advisers. Staff training, particularly in-country training, needs to be continued to offset staff turnover. Further reorganization and development of effective management systems are needed to improve MOA's performance. Nonetheless, the fact that the projects have made any headway, however limited, is noteworthy given the severe economic problems of Liberia during the past decade, the political instability resulting from the coup of 1980 and the effect this has had on Government of Liberia ministries, and the nature of Liberia's organizational culture and approach to public administration. At present, the severe fiscal crisis of the country and the significant budget constraints it creates are the most serious obstacles to improving MOA's management capability.

The key lessons learned from this study are the following: (1) data-related technologies must be simple, low in cost, yet

sufficient to meet basic information requirements if they are to be sustainable; (2) the management demands created by technology transfer must be anticipated and used as a criterion for the selection of advisers; (3) technical assistance and training must be provided on a continuous basis over time to assure that the gains made are not quickly lost; (4) greater emphasis must be given to in-country training to minimize disruption of agency operations; (5) organizational changes required to establish management systems necessary to support sector planning must be anticipated; (6) technical advisers should be used to provide quality control and staff support when these functions are not a normal part of agency operations; and (7) implementation flexibility in all aspects of planning projects is necessary to cope with unexpected constraints and to capitalize on unexpected opportunities should they arise.

PROJECT DATA SHEET

1. Country: Liberia

2. Project Title and Number:

   Agriculture Analysis and Planning Project--669-0137

3. Project Purpose:

   To develop a fully functioning planning and evaluation division within the Ministry of Agriculture to facilitate the development of programs relevant to the solution of problems faced by traditional farmers.

4. Project Funding:

   AID Contribution: $3,250,000 (Grant)
   Liberia Contribution: 1,561,500
   Total Project Cost: $4,811,500

5. Project Implementation:

   a. Authorization Date: 6/24/77
   b. Amendment Dates: 9/29/82, 7/30/83, 1/3/84
   c. Mode: Project Agreement Between AID and the Government of Liberia
   d. Technical Assistance Contract: Participating Agency Service Agreement (PASA) with the U.S. Department of Agriculture

6. Evaluation: AID internal evaluation, 1980

7. Outputs:

   Long- and short-term training for 54 staff members from the Ministry of Agriculture; assistance from technical advisers to the Ministry of Agriculture on policy, organization, and operations; establishment of a basic capacity to collect and analyze agricultural data; establishment of a basic capacity for project analysis.

8. Host Country Exchange Rate: Liberia uses U.S. currency.

GLOSSARY

AID - Agency for International Development

Bluebook - Liberia's Agricultural Development: Policy and Organizational Structure, 1980

EEC - European Economic Community

ESF - Economic Support Funds provided by AID

GDP - Gross domestic product

IBRD - International Bank for Reconstruction and Development (World Bank)

IGGL - Inter-Governmental Group for Liberia

IMF - International Monetary Fund

ISPC - International Statistical Programs Center

LIPA - Liberia Institute of Public Administration

MDG - Monrovia Donors Group

MOA - Ministry of Agriculture

PAID - Pan African Institute of Development

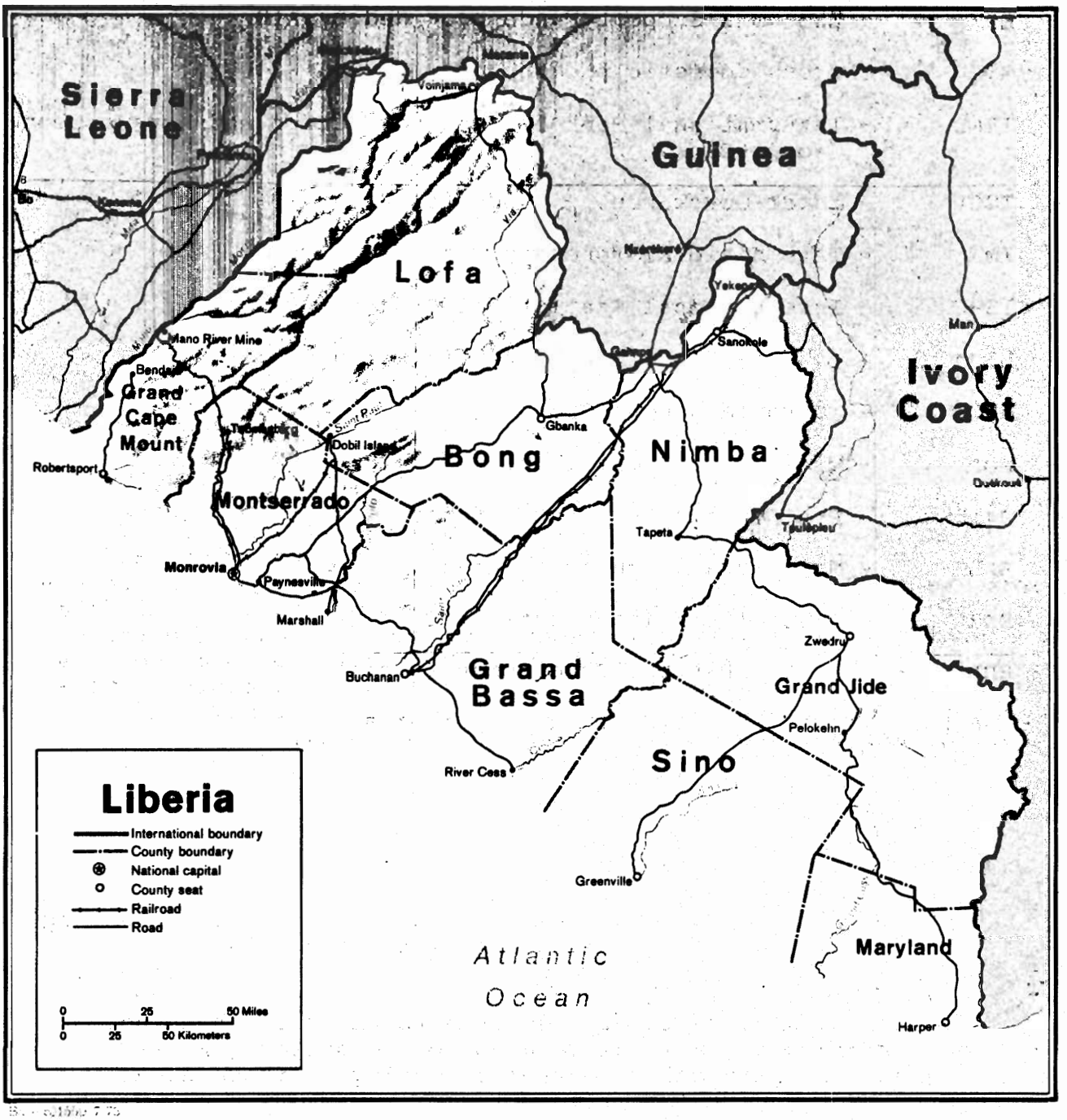
SAL - Structural Adjustment Loan

SDR - Special Drawing Rights (IMF)

UNDP - United Nations Development Program

USAID, USAID/Monrovia - the AID field office in Liberia

MAP


Sierra Leone
Guinea
Ivory Coast
Lofa
Mano River Mine
Bendaja
Grand Cape Mount
Robertsport
Montserrado
Monrovia
Paynesville
Marshall
Buchanan
Gbanka
Bong
Nimba
Sanokole
Man
Tapeta
Zwedru
Grand Bassa
Grand Jide
Pelokehn
Sino
River Cess
Greenville
Maryland
Harper
Atlantic Ocean
Liberia
International boundary
County boundary
National capital
County seat
Railroad
Road
0 25 50 Miles
0 25 50 Kilometers

1. PROGRAM SETTING AND DESCRIPTION

1.1 Overview

The Agency for International Development (AID) provided support to the Liberian Ministry of Agriculture (MOA) for 12 years with the objective of institutionalizing sector analysis as the control mode of planning and policy formulation within MOA. Although this study focuses primarily on the Agriculture Analysis and Planning Project (669-0137) which began in 1979, AID assistance to strengthen MOA's capacity to collect basic data and conduct analyses for sector planning started in 1972 with the Agriculture Development Program (669-0123). Therefore, to accurately assess the development management impact of AID's assistance to MOA, the long-term, 12-year effort must be considered.

In many types of agricultural service projects (e.g., extension development), management interventions are designed to support or make better use of the main inputs and activities of the project. In contrast, the principal objective of agriculture planning projects is to improve the management of available resources within the sector. Therefore, to assess the impact these projects have had on MOA's management systems requires viewing the entire project and its inputs as the management intervention.

Three main interventions that affected MOA management were made by the projects: (1) staff development, (2) technology transfer, and (3) organizational and operational changes. The perspective taken in this study is that staff development and organizational and operational changes support the central intervention of technology transfer. The technology consists of data collection methods, data management systems, and analytic techniques required for sector planning. From this perspective, the projects provide insight into the impact of a technology of management. However, the transfer and use of the technology also provide insight into the management of technology.

1.2 Project Description

The overarching objective of both projects has been to institutionalize sector analysis as the central mode for planning and policy formulation within MOA. An integrated planning approach was to replace MOA's existing orientation, which focused on individual projects and separate programs. Once in place, a sector plan would guide future investments and coordinate agricultural programs to maximize returns to the sector. Better planning and, in particular, better targeting on those areas

where Liberia has a comparative advantage or where success is most likely should lead to more effective projects. In turn, such projects and programs should produce greater benefits for the rural poor.

To accomplish this main objective, the projects provided 50 MOA staff members with short- and long-term training (e.g., master's degrees in agricultural economics, 1-year statistical training at the International Statistical Programs Center--ISPC); technical advisers in the areas of agricultural economics and agricultural statistics; and commodities necessary for field operations (e.g., measurement equipment, motorbikes for field staff) and for central data processing and analysis (e.g., microcomputers).

These inputs have directly benefited the Statistics and Planning Divisions within the Planning Department of MOA. Clearly, the sector planning objective is dependent on the acceptance by MOA and Government of Liberia officials of the concept of a sector approach and of the various organizational and operational changes this would require. But even with acceptance of the concept, sector planning remains dependent on the performance of these two key divisions. That is, sector planning requires adequate data collection, processing, and management (the Statistics Division), as well as data analysis (the Planning Division). In short, strengthening the operations of these two divisions has been an equally important objective of the projects and has had a direct and immediate impact on the management of MOA.

The need for these projects can best be understood in the context of the planning environment of Liberia. In general, careful analysis of possible options and their consequences has not typified many decisions concerning investment in the sector. A good illustration of this point was the decision to proceed with a communal farms project despite the recommendation from MOA's Planning Division that the activity was economically unjustifiable. Political interests prevailed over MOA's advice; the project proved to be an expensive failure. Such decisions are made possible, at least in part, by the lack of a sound information base for the sector. With adequate data and a coherent overall plan for the sector, MOA would be in a much stronger position to challenge unsound proposals and perhaps prevent costly errors.

1.3 Project History

The Agriculture Development Program (669-0123) and the Agriculture Analysis and Planning Project(669-0137) have achieved some of their objectives. Most important, these projects have

enabled MOA to collect and analyze primary agricultural data essential for more effective management of available resources in the sector. Particularly important are the annual national production estimates of major crops and data on farm practices that the Statistics Division collects and the Planning Division uses for various analytic purposes. MOA's current capability for such work is rudimentary and tenuous, but this capability did not exist at the outset of the Agriculture Development Program in 1972. The two projects have not led to a full acceptance by MOA of a sector approach to planning agricultural development (which was a major objective of both projects), nor is it likely that the current project will do so before its completion date of September 1986. This is due to the inconsistency between sector planning and Liberia's organizational culture; staff turnover both at senior and lower levels, which has caused a shifting base of support and unfamiliarity with the approach; and an inadequate data base.

It is important to recognize the context in which these projects have been implemented to appreciate what has been accomplished in improving MOA's management capability. Under the Agriculture Development Program, MOA progressed from having virtually no capacity for data collection and analysis to a point where the groundwork was laid for making this work a routine function. Except for economic problems, very favorable conditions prevailed during the first project, including a supportive and energetic Minister of Agriculture and a very effective technical adviser in statistics.

However, the gains made during this period (1972-1976) quickly eroded. A 2-year delay between the completion of the first project and the startup of the analysis and planning project interrupted the delivery of the technical assistance needed to sustain statistical and analytic operations. Economic and political conditions produced a further deterioration in MOA capacities. Severe budget constraints created a poor work environment. A rapid turnover of senior ministry officials (five ministers in as many years) meant a shifting base of support for the management interventions of the project. The Government coup in 1980 only accelerated the normal loss of competent professional staff necessary for statistical and analytic work. After the coup, severe economic problems produced major budgetary constraints for the Government of Liberia. Combined with continued political uncertainty, the work environment has not been conducive to retaining professionals within MOA. Under these conditions, it is remarkable that MOA possesses its current capability for data-related activities (e.g., farm production surveys, project analysis) necessary for improved management of agricultural resources.

Since 1982, the Agriculture Analysis and Planning Project has helped MOA to regain some of the capacity it lost in preceding years. At present, the Statistics Division is capable of conducting an annual nationwide survey of agricultural production. The Planning Division is beginning to master some of the basic analytic techniques for sector planning and assessment of the economic viability of proposed agricultural investments.

Reasonably accurate agricultural data are essential for improving MOA's operations and management of resources; for planning and coordinating agricultural investments; and for purely strategic reasons (i.e., the necessity for the Government to demonstrate its commitment to improved management performance in the agriculture sector to ensure steady, if not expanded, donor assistance). Without ongoing technical assistance to MOA's Planning Department, in particular to the Statistics and Planning Divisions, some of this work would still continue (for how long is unclear), but the quality and quantity of work would diminish substantially.

2. STUDY FINDINGS

2.1 Contextual Factors: Economic, Political, and Cultural

2.1.2 Economic and Political Context

The Agriculture Analysis and Planning Project and its predecessor, the Agriculture Development Program, were significantly affected by Liberia's severe economic problems. Beginning with the increase in oil prices in 1974, Liberia's economic condition shifted from a pattern of relatively steady growth (during the 1960s and early 1970s) to stagnation and decline. Between 1974 and 1978, real growth in gross domestic product (GDP) was 0.7 percent, and per capita incomes declined. During the same period, Government expenditures accelerated and deficits increased from $4.3 million in 1975 to $137.3 million in 1979. External debt tripled, with an increasing proportion borrowed on harder terms.

The situation worsened in 1979. Rice riots occurred, followed by the coup in 1980. The immediate actions of the new Government exacerbated existing economic problems. Massive capital flight reflected investors' growing lack of confidence in the Government. Negative growth rates of -4.7 percent in 1980 and -5.0 percent in 1981 reflected the worsening economic situation. For example, monetary agriculture stagnated in 1980 and declined by 21.6 percent in 1981, and it is estimated that real monetary GDP decreased by about 3.0 percent in 1983.

The principal factors cited for Liberia's economic problems in recent years are (1) a stagnant domestic economy resulting from low world market prices for Liberia's chief exports; (2) decreased export earnings and foreign exchange; (3) a lack of liquidity and an inability to use monetary policy because the U.S. dollar is Liberia's currency; (4) public finance difficulties, including inflated public sector employment, shortfalls in revenue collection, and high deficits; and (5) lack of confidence in the economy due to mismanagement, corruption, inadequate Government support, and political uncertainty. In short, Liberia's economic problems degenerated from bad to worse during the course of the projects, in a political environment of uncertainty about and distrust of the Government.

Liberia's economic problems had a direct and negative effect on the projects. The most apparent manifestation of this is the Government fiscal crisis. Funds are extremely limited in MOA, even for regular functions. Even salaries are as much as 3 months late. This severely restricts MOA's capacity to utilize fully the technology provided by the projects or to undertake needed internal management reforms. (See Appendix A for USAID/Monrovia's recent assessment of Liberia's economic situation.)

2.1.2 Organizational Culture

As in many other African countries, patronage significantly affects the operation and management of Liberia's system of public administration. The influence of patronage is pervasive throughout the Government of Liberia, including MOA, and is evident in policy formulation (or the lack thereof), budgeting, appointment of officials, staff hiring, and promotions. A recent study sponsored jointly by AID and MOA identified the main characteristics of the system as follows: (1) authority is often vested in the person of a powerful patron; (2) policy and decision-making are often highly personalized and ad hoc; (3) budgeting, finance, procurement, and personnel systems are often ad hoc and necessarily so; (4) personnel appointments are frequently made on the basis of informal rather than formal rules; (5) accountability for actions tends to be attributed to the patron responsible for the individual's appointment rather than to the formal regulations of the institution; and (6) the continuance of the system is dependent on co-opting previously excluded groups. These characteristics are only generalizations about Liberia's system of public administration and certainly are not unique to Liberia or MOA; exceptions can be found. However, patronage values exert a deleterious effect on efforts to improve management within the agriculture sector generally and MOA specifically.

A key problem affecting the management of agencies within the agriculture sector, including MOA, is the lack of specificity

about assigned tasks, roles, functions, and priorities. As a result, responsibilities and jurisdictions overlap, leading to competitiveness for and poor allocation of limited resources. Authority and status within the organization are ambiguous, which undercuts staff initiative. These problems are accentuated by a weak civil service system that provides little or no incentive or job security. Other consequences could be cited, but the important point is that such management problems can be traced back to the effects of patronage within the system.

In short, the organizational culture of Liberia's system of public administration constitutes a major constraint to the management interventions supported by the two projects.

2.1.3 Summary: Contextual Factors Relating to Management

Economic, political, and cultural factors have all exerted a negative influence on the management interventions attempted by the projects. As described above, Liberia's economic deterioration has led to a poor work environment unconducive to retaining professional staff. The coup in 1980 exacerbated economic problems and accelerated the normal turnover of professional staff within MOA. The frequent replacement of ministers in MOA has meant a shifting base of support for the objectives of the current project. (The contrary was true for the first project, which had the support of a single, strong minister.) As noted above, the organizational culture of Liberia's system of public administration is strongly influenced by patronage values that run contrary to the objectives of project planning. In particular, sector planning assumes that decisions are made on an informed basis to maximize economic benefit to the sector. The influence of patronage, on the other hand, leads to decisions that protect or advance personal rather than public economic or political interests.

Clearly, these contextual factors were beyond the control of the Agriculture Analysis and Planning Project and, with the exception of organizational culture, impossible to predict accurately. Under such conditions, the achievements of the projects (no matter how small) are all the more remarkable given that any one of these constraints might have totally thwarted any project accomplishment.

2.2 Technology Transfer

Sector planning constitutes the principal management intervention made by these two projects. The technology of sector analysis consists of the various techniques, procedures, and

methods necessary for (1) collecting agricultural and socioeconomic data, (2) processing and managing the data for analysts, and (3) analyzing the data to obtain information about the sector to guide investment. The products of using the technology--data, analyses, policy options--should lead to better resource management by MOA. A sector approach to agricultural planning would also require a fundamental reorientation of MOA operations. It would alter decision-making processes by establishing agricultural development objectives or priorities on the basis of economic analyses.

These objectives would then be used to formulate consistent agricultural policies and to develop appropriate programs and projects. Therefore, training and the organizational and operational changes supported by the projects were, for the most part, necessary steps that had to be taken to enable MOA to use the technology being offered by the projects.

To assess the impact of the technology on MOA management and operations, the underlying logic of the intervention and the sustainability, utility, and effectiveness of the technology were examined.

2.2.1 Underlying Logic of the Intervention

Agriculture sector analysis projects assume that two types of values or rationality guide the workings of government agencies: (1) purposive rationality, in which the staff of a public institution ascribe to collectively held values about the importance of achieving institutional objectives; and (2) economic rationality, in which decisions are made primarily on the basis of maximizing economic return to the sector. Such assumptions are not consistent with the organizational culture of Liberia's system of public administration. It is not surprising that the results of economic analyses appear to have had limited effect on decision-making. In short, assumptions of purposive and economic rationality are untenable until profound and fundamental changes occur throughout the Government of Liberia and in its approach to public administration.

2.2.2 Sustainability of the Technology

The data collection and analysis techniques supported by the project are appropriate for MOA's current human and financial resources. The methods and techniques are simple, basic, and as low in cost as possible, yet sufficient for the work required of the Statistics and Planning Divisions. In particular, the projects have tried to establish a capability for conducting annual

agricultural surveys that focus on crop yield and farm practices by employing uncomplicated sampling designs and procedures. Similarly, efforts to develop analytic capabilities have concentrated on the fundamentals of economic analysis and only recently have turned to more sophisticated methods (e.g., modeling). The projects have made a concerted effort to anticipate the recurrent costs generated by the technologies. If these and other data-related activities that have been sponsored by the projects are inappropriate for MOA, then there is no need for a statistics or planning division within the ministry. However, improved methods of data collection and analysis should be explored, with particular attention given to the management as well as the technical demands created by new systems or techniques.

It is unlikely that data collection and analysis by the Planning Department could be maintained at the current level without continued project support. The Planning Department's present capacity for such work remains tenuous. Additional training is needed to reinforce current operations and offset normal staff turnover, and continued assistance from technical advisers is needed to maintain and improve staff performance. However, the principal threat to sustainability at this time is Liberia's fiscal crisis. In short, the problem of sustainability is not due to the technology (i.e., it is not inappropriate), but rather to factors beyond the control of the project.

2.2.3 Utility of the Technology

The high utility of the technology is apparent in the current products of the Statistics and Planning Divisions. The technology is fundamental to the two divisions' fulfilling their responsibilities. The data and statistical reports produced by the divisions are used by other departments in MOA, other Government ministries (such as Finance and Planning), international donors, embassies, and the private sector. Clearly, the utility of the technology extends beyond MOA. In comparison with other Government ministries, such as Planning and Economic Affairs, MOA's capacity for collection and analysis of agricultural data is substantially greater as a result of the technology transfer. It should be noted that this utility results from the use of the techniques by MOA staff. There is no indication that the technical advisers are playing an inordinately heavy role in the work of the divisions. To the contrary, the current advisers make a concerted effort to be instructors and professional role models for MOA staff.

2.2.4 Effectiveness of the Technology

The impact of the technology as indicated by its effect on MOA's management systems (e.g., decision-making, policy formulation) has been negligible. MOA has not accepted the sector approach to planning as its principal mode of operation. Again, organizational culture is a contributing factor. The turnover of senior officials during recent years has created a shifting base of support for the approach. Consequently, the concept of sector planning remains new within MOA. MOA is only now approaching the point where it has the necessary technical expertise among its staff to carry out sector analysis. Finally, sector analysis will require a broader agricultural data base than now exists (i.e., more than agricultural production). In short, the original objective of institutionalizing sector analysis by the conclusion of the project was premature in the sense that the basic elements were not initially in place. Sector planning would entail a profound reorientation of MOA management procedures, particularly for decision-making. It is more realistic to view sector planning as a long-term objective to be worked toward gradually, rather than as a specific output that could be accomplished within the life of a single project.

Despite the difficulties the projects have encountered with meeting their sector planning objective, there is evidence that the approach is making some limited headway within MOA. The current minister makes increasing use of the Planning Division's analytic capabilities. The number of ad hoc requests the minister makes for information from the Planning Division reflects the utility of its products.

Similarly, analysts from the Division played a central role in developing MOA's response to the World Bank's analysis of the agriculture sector. Recent technical training has further strengthened staff capabilities for conducting the types of analyses necessary for sector planning. It should also be recognized that the overall effort of improving available data and analysis of the agriculture sector is strategically wise. At the very least, it demonstrates MOA's willingness to cooperate with donors' demands for better planning and resource management.

2.3 Human Resources Management

2.3.1 Training

Some 50 MOA staff have received training supported by the two projects. Twenty-two individuals received M.S. degrees, one a Ph.D., and one an LL.B., with the remainder attending 1-year

intensive training programs at the International Statistical Programs Center (U.S. Bureau of the Census) or other short-term programs. To build the planning and analytic capability of MOA, training has focused on two principal areas: agricultural economics and statistics. Trainees are selected by senior MOA officials and AID advisers.

Trainees who recently have returned from the United States reflect the types of technical skills MOA staff are acquiring. Microcomputer-based farm budgeting models were developed by MOA trainees with the assistance and supervision of agricultural economists. For example, one individual constructed a farm budget model for a typical Liberian farm based on estimates of costs, returns, and labor requirements using a standard software package for microcomputers. Training in the application and use of other off-the-shelf software was also available using software packages compatible with MOA equipment. In short, current training is leading to the establishment of the critical mass of technically trained individuals necessary for actually conducting sector planning.

The current project has provided constant on-the-job training through the services of the technical advisers. An agricultural economist and an agricultural statistician are assisting the staff of the Statistics and Planning Divisions in using the techniques and skills they acquired through training. A good example is the "dry run" seminar that the economist led the Planning Division staff through in preparing a sector plan of their own. Staff who participated in the process reported that they benefited professionally from the assignment. A forthcoming workshop focusing on the use of policy models should, among other things, prove instructive for MOA staff.

Although many of those trained through the projects have left MOA over time, the vast majority of them have remained in Liberia and currently work in the agriculture sector (e.g., on agriculture development projects, for agricultural companies). Training provided by the projects has clearly upgraded the professional skills and performance of the participants. Improvements in the operations of the Statistics and Planning Divisions can be linked directly to the various individuals who received either short- or long-term training. It is fair to conclude that the training component not only has strengthened MOA's capacity for planning and analysis, but also has been of benefit to the sector as a whole. However, a more concerted effort is needed to incorporate some basic management course work with the technical training to further strengthen the Planning Department. Additional on-the-job and short-term, in-country training at all levels is also needed to improve management performance.

2.3.2 Personnel Management

The MOA needs to make more effective use of available staff skills. According to Planning Department staff, supervision has been weak, there are few opportunities for staff discussions, and work assignments are too frequently made on an ad hoc basis. Some staff reported that they felt inadequately equipped for their responsibilities and needed additional training in project analysis. These problems adversely affect staff morale.

2.3.3 Leadership

Leadership has significantly affected the course of both projects. The first project, the Agriculture Development Program, benefited from the strong leadership provided by the Minister of Agriculture (a dynamic individual supportive of the project) and the statistical adviser (an effective instructor and role model). Comparable leadership during the initial years of the current project was lacking due largely to frequent replacement of ministers and their less active support of the project. The situation is now reversed, with the current minister highly supportive of the project. The Deputy Minister for the Planning Department is a former trainee of the preceding project and strongly promotes the objectives of the current project. He is regarded as a good manager and is respected by his staff for his professionalism. Similarly, the current advisers are functioning as professional role models for the Planning Department's technical staff.

2.4 Organization, Structure, and Institutional Considerations

During the course of the projects, the policies, programs, and organization of MOA underwent significant change. Emphasis shifted from increased food production to provision of agricultural services and some inputs; from individual projects with separate objectives to sector planning and increased coordination of agricultural programs; from a predominant involvement with commercial, export-oriented agriculture and agro-forestry to greater attention to increased productivity of traditional subsistence agriculture.

MOA's transition since 1972 can be viewed, in large part, as a response to changing economic and political conditions. However, project assistance has contributed to both the scope and direction of this transition in two important ways. First, sector planning has been the central, overarching objective of both projects. Training and technical assistance contributed signifi-

cantly to establishing the Planning Department's current capability. Although no official sector plan is in place, MOA has in recent years become increasingly receptive to a sector approach to planning.

Second, the current project initially placed heavy emphasis on reorganizing MOA to support sector planning operations. This marked a significant deviation from project assistance provided through the first project. From 1972 to 1976, technical assistance was concentrated on establishing basic capabilities for data collection and analysis. With the start of the current project in 1979, the technical emphasis became secondary to the reorganization of MOA and the relationship between institutional structure and policy implementation. The basic plan for reorganization was to establish divisions that corresponded more closely to key functions of MOA (e.g., extension, planning). Ideally, such a structure would allow more clearly defined responsibilities among divisions, coordinating their activities and directing resources more effectively to critical problems. In short, reorganization was intended to improve MOA management and operations.

Neither project appears to have explicitly anticipated in its original design the need for organizational changes to support sector planning. Nor is it likely that the projects could have made reorganization a formal objective, because the initiative for doing so did not originate with the Liberians. Rather, this appears to have resulted, in part, because reorganization fit within the broader interests of the Minister of Agriculture and, in part, because of the interests or objectives of USAID technical advisers at that time.

During this period of project assistance (1979-1982), a plan for internal reorganization and policy revision was written, primarily by the technical advisers. Reduced funds, frequent staff changes, the rapidly changing political environment, and a growing preoccupation with events outside of MOA created an environment in which such ideas could be advanced but not easily carried out. Consequently, the plan (the "Bluebook") was only partially implemented. The current structure of the ministry generally conforms to the plan's recommendations, but the plan does not represent official MOA policy. At present, MOA staff are uncertain about the official status of the plan. Because of the heavy involvement of the technical advisers in its production, some view at least parts of the plan as a USAID-generated document rather than an MOA product.

There is some evidence that the increased emphasis given to the reorganization of MOA occurred at some expense to a further strengthening of technical capabilities. Clearly, the macro-level issues appealed to the interests of at least one of the technical advisers. Moreover, after the coup in 1980, this same adviser

developed a close tie to the new regime. Achieving this entree appears to have been viewed by some as temporarily more important than original project objectives. The opportunity both to monitor and to influence events through the adviser took precedence over such comparatively mundane matters as developing technical capabilities for sector planning. This should not necessarily be interpreted as a negative turn of events, but rather as a type of flexibility in providing assistance as conditions and circumstances dictate.

With the arrival of new advisers and the stabilization of MOA operations (at reduced levels) in 1983, project assistance entered a period of "integration," that is, of concentration on regaining technical capability while remaining cognizant of organizational requirements to implement and institutionalize sector planning. However, fiscal constraints limit these efforts.

At present, the Bluebook and the framework it suggests for coordinating and integrating activities persist. But factors external to the project constrain full implementation of these plans. Because of limited discretionary funds, MOA managers largely administer program activities that are managed through donor-funded projects. Consequently, there is only nominal integration of agricultural programs into MOA operations. Although ad hoc committees are responsible for coordination and integration of agricultural programs, they lack the means to follow up on recommendations. Linkages between agencies (particularly between those responsible for research and extension) also remain weak as a result of poor coordination. Finally, because MOA does not directly control monitoring and evaluation of the agricultural programs, it has limited means to act on evaluation findings and recommendations.

In summary, the projects have had a significant impact on the internal organization of MOA and have contributed to two important accomplishments for improving MOA management: (1) the management implications of sector planning by MOA became a focus of attention; and (2) although not completely successful, the Bluebook provides MOA with a point of departure for redefining its official policy and internal organization.

2.5 Administrative Process Changes

If anything, MOA's administrative systems appear to have deteriorated during the course of the projects because of Liberia's worsening economic situation. Inadequate communication, insufficient office supplies, salary cuts, salary delays, no regular promotion, and few incentives largely reflect this situation. At present, there is limited integration of many activities within the Planning Department. The Central Monitor-

ing and Evaluation Unit, for example, funded separately through an external development assistance project but located within the Planning Department, provides little useful or timely information to the department or to MOA. Some units seem to be unfamiliar with the work of other offices; this contributes to overlapping activities and inefficient use of the department's human and financial resources. The work in several units is performed on an ad hoc, by-request basis. Although this is necessary to some extent, priorities are needed to target and direct staff work. There is a clear need for developing a management information system to help correct these administrative problems.

2.6 Resource Input Management

The projects studied in Liberia offer some limited insight into the management of project inputs. The study found no major problems stemming from the management or use of project resources (e.g., training, use of technical advisers by MOA). This suggests that greater control could be exercised over project resources that are concentrated on staff training and technical advisers, as opposed to commodity procurement, program support, and so forth. As described earlier, financial problems affecting the project resulted from the economic crises and the severe budget constraints of the Government of Liberia. Consequently, the financial problems encountered by advisers appear to arise from the scarcity of alternative sources of discretionary or operational funds (e.g., for transportation, fuel, per diem expenses).

Overall, the projects appear to have anticipated the major logistical and commodity requirements. The current project provides funds for essential activities and commodities not covered by MOA's operating budget. For example, the project has provided motorbikes for county statisticians and enumerators to give them the mobility they need to carry out their work. (They actually purchase the motorbikes on a time basis; small deductions from their salaries are made until they have paid for the bikes.) Communication between the central office and the field is extremely difficult because of limited budgets and the lack of telephones or radios. Consequently, the project provides funds for essential travel from the central office to the field. Microcomputers as well as basic supplies and equipment necessary for the farm surveys have also been purchased through the project. In short, the projects have contributed significantly to assisting MOA in meeting logistical and commodity requirements for data-related activities.

It also should be noted that a concerted effort has been made in the projects to anticipate recurrent costs generated by sector planning and its data collection and analysis requirements. In general, the projects have supported methods and tech-

niques that are cost-effective; that is, those that are simple, low cost, commensurate with the skill levels of MOA staff, and yet sufficient to meet basic information needs.

3. CONCLUSIONS AND LESSONS LEARNED

3.1 Contextual Factors

1. Flexibility in project design and implementation is necessary. Flexibility to modify implementation strategies is important for planning projects so that project activities can be adjusted to cope with unanticipated constraints or to capitalize on unexpected opportunities. This is especially true in highly unstable project environments.

3.2 Technology Transfer

1. Assumptions about purposive and economic rationality should be treated as project objectives rather than as givens. The underlying assumptions of purposive and economic rationality in planning projects are untenable for many, or perhaps most, developing countries. As a result, initial project objectives (e.g., institutionalizing sector planning) may be difficult or impossible to achieve. In such instances, a more realistic strategy is needed. The project should attempt to demonstrate the utility of adhering to particular values (e.g., more efficient and effective use of available resources) while recognizing that full acceptance is unlikely.

2. Sector planning requires host country political commitment. If sector planning is to improve the management of available resources and maximize returns on investments, economic and other types of analyses produced on the basis of the sector strategy cannot be consistently ignored or overruled by political leaders and other decision-makers.

3. Appropriate technology for data-related activities must be simple, low cost, yet sufficient to be sustainable. State-of-the-art, sophisticated technologies should be avoided when the objective is to develop information systems that the host country must support. Simple, low-cost techniques that are adequate to get the job done should be developed first. For example, uncomplicated sampling designs based on the best available listing of farm households will initially be far more manageable by the host country (i.e., within their budget and staff capabilities) than more elaborate methods (e.g., area frame sampling). More sophisticated techniques to improve data quality (or some other aspect

of data collection, processing, or analysis) can be introduced on a pilot basis. Management, as well as technical requirements, should be examined.

4. Management demands created by technology transfer need to be anticipated. Developing an adequate technical understanding of techniques and methods of data collection and analysis is not sufficient for institutionalizing information systems. Recurrent cost and management requirements (e.g., supervision, coordination of information needs) must be within the capacity of the recipient institution.

5. Continuity of technical assistance is essential. Discontinuity in the provision of technical assistance quickly undermines project accomplishments. Adequate time must be provided for recruiting subsequent teams of advisers, even if this produces overlap between teams.

6. Leadership facilitates technology transfer and institution building. Technically skilled advisers are necessary but not sufficient for effective transfer of skills and techniques. Leadership skills on the part of host country managers as well as technical advisers significantly advance the attainment of institution-building objectives.

7. Management skills should be considered when recruiting technical advisers for planning projects. Projects that attempt to improve the performance of an institution through improved information systems tend to overlook the management demands of such projects and focus on the technical demands. Management skills should be a key criterion for selection of at least one adviser for planning projects.

8. Agriculture planning projects are high-risk activities that offer a high payoff if successful. Managing agriculture planning projects requires managing uncertainty--there is no guarantee that workable and acceptable investment strategies will be identified by the project. However, the payoff from such projects (i.e., increased return on investments in the sector) warrants the high risk. AID should view its support for such projects as providing the risk capital that developing countries cannot afford.

3.3 Human Resources Management

1. Flexibility in training plans is needed. A change in government might disrupt original training plans. Participants may not return, or they may choose or be forced into another position after returning. Therefore, flexibility is essential when designing training plans to strengthen institutional capacities.

2. Management training is needed in technology transfer projects. Technical training often leads to job promotions; however, higher level positions require effective managerial skills. Therefore, when training is provided for a core group of long-term or short-term participants as an institution-building activity, management training should be included in the curriculum, even when the principal objective is to develop technical skills.

3. Greater emphasis should be placed on short-term, in-country training. When there is a shortage of trained personnel, greater emphasis should be placed on in-country and short-term training for government workers rather than on long-term participant training. This approach can minimize increased workloads for remaining staff, permit the office to continue to function, and produce immediate (although gradual) improvements in office performance.

4. Continuity of training is essential for institution building. To ensure the sustainability of institution-building projects, training must be provided on a continuing basis over the long term to compensate for the normal turnover of staff within public institutions and to meet additional or new staffing requirements as they arise.

5. A weak civil service encourages staff turnover. Without promotion opportunities, regular salary payments, accurate job descriptions, rewards for excellent performance, and other incentives, returning participants in the public sector are likely to move on to better positions in the public or private sector.

6. Quality work assignments provide staff incentives. Clearly defined work assignments that challenge an individual's skills or tap that person's intellectual interests can serve as incentives, at least temporarily, when promotion opportunities and other financial rewards are lacking.

3.4 Organization, Structure, and Institutional Considerations

1. Developing the capacity to manage sector planning requires a long-term initiative in institution building. A long-term process is necessary to develop appropriate staffing patterns, management skills, and administrative procedures to implement sector planning.

2. Policy and planning changes require organizational changes. Changes in policies and planning strategies require corresponding modifications in organizational structure and management arrangements to implement new policy and planning objectives.

3. Effective management requires adequate funding. Without at least some discretionary resources available to managers, they become, in effect, administrators of activities that are controlled outside the institution.

4. Technical advisers can provide management support. Technical advisers can provide quality control over analytic work and staff support (e.g., suggestions for improving a product, instructive assistance on complicated techniques or problems, encouragement of and interest in others' work) when these functions are not otherwise institutionalized within the organization.

5. Organizational changes also result from external pressures. Substantive organizational changes, particularly in public institutions, are brought about at least as much by external pressure as by project-initiated actions.

6. Technical and organizational emphases should be balanced. Emphasis on technical requirements of planning projects should not occur at the expense of organizational or managerial requirements, and vice versa.

3.5 Administrative Process Change

1. Effective administrative systems are necessary to capitalize on technical capabilities. The effects of improved technical capabilities and organizational streamlining are diminished, sometimes substantially, when the institution lacks adequate administrative systems. Such systems are necessary to provide overall coordination and direction of divisions within the institution.

3.6 Resource Input Management

1. Logistical and commodity requirements for sector planning should be covered by project funds for countries facing severe economic constraints. The logistical and commodity requirements of conducting data collection and analysis activities for sector planning can easily exceed the operating budgets of host countries confronting severe economic problems. Such costs need to be fully recognized, and project funds must be available to meet those costs until the host country can assume them.

APPENDIX A

ECONOMIC OVERVIEW OF LIBERIA[1]

1. ECONOMIC OVERVIEW

Between 1980 and 1982, Liberia's monetary economy registered an average annual decline of 4.4 percent in real terms. Monetary gross domestic product (GDP) in 1971 dollars at factor cost fell from $366.2 million in 1980 to $336.5 million in 1982, while total GDP (including the nonmonetary sector) declined from $443.4 million in 1980 to $417.5 million in 1982. Preliminary estimates for 1983 indicated a further decrease of about 3 percent or more in real monetary GDP. Severe power outages in 1983 and early 1984 continued to have a serious negative effect on production. Liberia's negative growth also illustrates the effects of the world recession; the overall decline in total GDP occurred despite a resurgence of growth in the nonmonetary subsistence agriculture sector.

1.1 Sectoral Performance

The mining industry is dominated by iron ore, which accounted for about 29 percent of real GDP in 1982. The mining companies went through an extremely difficult period leading to the introduction of major cost-reduction schemes in late 1982 and again in early 1984. A study funded by the European Economic Community indicates that iron ore mining in Liberia may effectively cease during the latter part of the decade (i.e., in 1986-1987) unless new (known) reserves are exploited. This will require large-scale capital investment, however, which is unlikely as long as iron ore prices remain depressed.

Approximately 70 percent of the population depends on agriculture and related activities. The agriculture sector consists of a monetized sector, which produces essentially for export, and the traditional sector, producing mainly for subsistence. Although coffee and cocoa exports have remained relatively stable over the past few years, monetized agriculture's other contributions to GDP declined from over 19 percent in 1980 to about 14 percent in 1982. This was due to a significant fall in the production of rubber and logs as a result of depressed export prices. The recent rise in the world market price for rubber will improve

---

[1]The information in this appendix is taken from USAID/Monrovia, Country Development Strategy Statement, Fiscal Years 1985-1989.

the situation, and many small rubber farmers have begun to tap their trees once again. Two large rubber concessions hope to initiate expansion plans in the near future. Rubber trees have a peak production period of 25 years. Because most of Liberia's productive trees were planted during the Korean War, rehabilitation replanting will become an important issue over the next few years.

Hopes that the Liberian timber industry might begin to recover in 1983 were not realized. The timber industry remains severely depressed. The number of active companies dropped from 30 in 1980 to about 6 in 1984. Although there has been some revival in European demand for West African timber, Liberia has not benefited so far because the strength of the dollar makes its prices unattractive relative to the prices for timber from the Ivory Coast, Cameroon, and Gabon. Also, the IBRD has predicted that Liberia's prime timber species may be exhausted by the mid-1990s and has recommended conservation and controlled harvesting.

Although most Liberian-grown rice is consumed rather than marketed, there is evidence that domestic rice production has increased significantly (10 percent) over the past two harvests. Sales of paddy to the Government marketing agent have increased. However, some of this rice may have come from neighboring countries where the dollar is in demand. Increased farm gate prices (to world market levels), good rainfall, and additional land being brought under cultivation are major factors that probably benefited domestic rice production.

Except for "government services," which constitutes little in the way of increased productivity and value added, the domestic-oriented sector continues to be depressed. Manufacturing activities account for only about 7 percent of monetary GDP and provide employment for about 6,000 persons. Manufacturing establishments are mostly foreign owned and limited to assemblage, agricultural processing, beverages, and chemical products.

1.2 Government Finance and Balance of Payments

Depressed economic activity has significantly reduced Liberia's revenues and contributed to the continuing fiscal crisis facing the Government of Liberia. Simultaneously, recurrent expenditures have risen and efforts to curtail them have proved difficult to implement and to sustain, thereby proving only partially successful. The country continued to be plagued by large budget deficits ($118 million in budget year 1981/1982, an estimated $99 million in 1982/1983, and about $42.4 million projected for 1983/1984).

To meet International Monetary Fund (IMF) deficit targets and to sustain high recurrent budget levels, Government of Liberia contributions to the development budget fell by about a third between 1979/1980 and 1982/1983. Currently, Government spending for development is primarily through counterpart funding to support donor projects and the salaries of Liberian Government staff involved in projects. Liberian development projects that are not donor supported are primarily construction related and not necessarily focused on increasing productive capacity. This problem is further complicated by the Government's illiquidity.

Also a major problem area is the balance of payments situation, with depressed export earnings, demands on the offshore funds account to meet domestic spending needs, rising debt obligations, and inability to build up foreign exchange reserves (see Table A-1). Furthermore, there has been significant foreign disinvestment, averaging $30 million a year between 1979 and 1981. Although the rate of disinvestment slowed in 1982 and 1983, any economic recovery program must aim at reversing this trend. Liberia's external debt position has deteriorated considerably in recent years. Annual debt service payments increased from $21 million in 1975/1976 to $71.4 million in 1982/1983 and were budgeted at $93.5 million for the budget year 1983/1984. Despite successful Paris Club (government creditors) and London Club (commercial bank creditors) reschedulings since 1980, annual debt service payments remain a very heavy burden on Government finances.

2. CURRENT EFFORTS AT STABILIZATION

The Liberian Government is seeking to solve its severe economic problems through a series of Standby Agreements with the IMF and through annual U.S. Economic Support Fund (ESF) grants. All have centered on alleviating budget deficits through measures to increase revenue, improve expenditure controls, strengthen public sector management, and limit domestic and external borrowing.

The current 1983/1984 IMF Standby (SDR $55 million or $58 million) was approved in September 1983 and continues to focus on public sector expenditures, limiting the overall budget deficit and domestic bank financing to $42.4 million and $30 million, respectively. This Standby Agreement is possibly the final one under which Liberia can receive funding to supplement its own resources. Even if a new Agreement is signed, no net inflows are likely given the level of repurchases Liberia already must make from the Fund. With future IMF transfers wholly covering Government of Liberia repurchases from the Fund and debt, some diminution of IMF leverage in enforcing Standby conditions might also be anticipated.

Table A-1. Foreign Assets of the Liberian Banking System, December 1979-September 1983 (in millions of dollars)

Foreign Assets and Liabilities	Dec. 1979	Dec. 1980	Dec. 1981	Dec. 1982	Dec. 1983
National Bank of Liberia (Net)	-12.5	-71.9	-109.8	-166.1	-184.4
Foreign Assets	(54.9)	(4.0)	(13.3)	(12.2)	(15.7)
Foreign Liabilities	(-67.4)	(-75.9)	(-123.1)	(-178.3)	(-200.1)
Commercial Banks (Net)	-27.0	-29.7	-40.8	-35.4	-11.4
Foreign Assets	(35.8)	(19.7)	(15.5)	(19.1)	(24.0)
Foreign Liabilities	(-62.8)	(-49.4)	(-56.3)	(-54.5)	(-35.4)
Total (Net)	-39.5	-101.6	150.6	-201.5	-195.8

The IBRD is currently appraising a Structural Adjustment Loan (SAL) for early 1985 approval that could provide up to $25 million in budget support over an 18-month period. This International Development Association credit will be predicated on policy reforms in the areas of fiscal management, public corporations management, agriculture, and energy.

Government, IMF, and AID stabilization efforts have had at best mixed results, with Liberia's financial problems proving to be more persistent and complex, and needed solutions more long-term in nature, than originally expected. As the data in Table A-2 illustrate, some progress has been made, but this has been less than expected and difficult to achieve. Expenditure cuts have not occurred as rapidly as or in the amounts originally projected. Revenues, a comparative bright spot, have fallen short of targets (in part due to the overall decline in imports, with the resultant fall in customs/excise tax collections), leaving still sizable budget deficits.

To its credit the Liberian Government has, albeit often with much difficulty and some tolerance from the IMF and the United States, maintained one of the better records in Africa for compliance with IMF terms. The Government has made difficult, even courageous, policy decisions--the rice price increase in 1981 and the wage cuts for Government employees in 1982--and has under consideration at the time of this writing a proposal to reduce by 33 percent the number of Government employees. A Government hiring freeze is in its second year, and the Government recently, for the second time and with U.S. "prodding," reduced official travel per diem rates.

However, implementation of Liberian Government policy and other directives falls seriously short, reflecting deficiencies in administrative systems (for example, 9 months are required to record expenditures after they are made); evasion (personnel promotions have eroded gains initially made by the 1982 wage reductions); and ineffective expenditure controls, which enable budget levels to be exceeded and extrabudgetary expenditures to remain high. Although revenue collections are up in areas where Internal Revenue Service advisers work, increases in collections due to special campaigns are hard to sustain. U.S. Customs Service advisers, in place since April 1983, are confronted with a lack of necessary and secure warehousing, poor morale, and seriously underdeveloped organizational and management structures, in addition to chronic problems of underinvoicing, poor records, and graft.

Two very promising developments occurred during 1983. A U.S. interagency group for Liberia began formulating a course of action for a more integrated U.S. approach to Liberia for the short and medium terms. Beyond marshaling support for more resources for Liberia, the group should contribute to enhanced policy formulation.

Table A-2. Summary of Liberian Fiscal Operations, 1979/1980-1983/1984
(in $ millions)

Item	1979/80	1980/81	1981/82	1982/83	1983/84[a]
Revenue	202.8	217.9	237.9	223.4	247.0
Grants	23.0	24.5	41.4	33.0	59.0[b]
Total	225.8	242.4	279.3	256.4	306.0
Current Expenditures	152.1	212.0	261.4	220.3	180.5
Wages & Salaries	(94.4)	(138.1)	(157.7)	(136.5)	(122.1)
Interest on Debt	27.6	20.8	39.2	44.2	54.9
Total	179.7	232.8	300.6	264.5	235.4
Current (+/-)	46.1	9.6	-21.3	-8.1	70.6
Development Expenditures	134.0	124.2	96.4	90.6	113.0[2]
Local	(-)	(59.1)	(62.8)	(56.9)	(53.5)
Foreign	(-)	(65.1)	(33.6)	(34.0)	(59.5)[2]
Overall (+/-)	-87.9	-114.6	-117.7	-99.0	-42.4
Financing of Deficit	87.9	114.6	117.7	99.0	42.4
Foreign (Net)	65.5	60.2	39.9	37.7	12.4
IMF Drawings	(87.0)	(67.2)	(46.4)	(43.1)	(51.0)
Amortization	(-21.5)	(-7.0)	(-6.5)	(-5.4)	(-38.6)
Domestic Borrowing	22.4	54.4	77.8	61.3	30.0

[a]Budget estimates.

[b]This figure is recognized as inflated, and the Government may do well to maintain the 1982/1983 levels.

In late 1983, the United Nations Development Program (UNDP) hosted a donors conference on Liberia. Although the meeting did not immediately generate new external assistance commitments, it did launch efforts to create the U.S.-chaired Inter-Governmental Group for Liberia (IGGL). Country team efforts, supported by Washington, to obtain agreement to the IGGL's terms of reference are nearing completion, and demarches to the four prospective members who have not yet agreed to join are underway. The first IGGL meeting may occur in late 1984. Similarly, the Monrovia Donors Group (MDG), a local coordinating body, was to be announced in March 1984. Together the IGGL and MDG should improve the targeting and utilization of donor and Liberian Government resources, facilitate more coordinated dialogue between donors and the Government, increase the number of donors active in Liberia, and ultimately, it is hoped, increase assistance flows.

3. ECONOMIC PROSPECTS

Prospects for financial stability and initiation of recovery in the short term (i.e., during 1984/1987) will depend on a combination of external economic improvements and the strength of the Liberian Government's policy and implementation performance. A significant increase in iron ore prices might make new investments profitable. Otherwise, the Government should start planning for the economic (and possibly political) dislocations that will flow from closure of the iron ore mines. The tree crop sector may grow slowly, but cannot replace the loss of revenue and employment that is generated by the iron ore industry. Rehabilitation of rubber trees and timber conservation will become increasingly important although the latter is difficult in a country where slash-and-burn agriculture predominates and controls on timber companies are weak.

Heavy public sector expenditures, especially for salaries, continue to plague the Liberian budget. Although salaries of Government workers were reduced by 16-25 percent in December 1982, further reductions in the aggregate payroll are required to balance the budget, ease domestic liquidity constraints, and ensure that funds are available for drugs, school supplies, gasoline and other materials needed to provide Government services. An effective, sustainable program to cut the payroll and to control spending, especially extrabudgetary spending, is central to achieving stabilization goals. This, in turn, requires strengthening Government institutional and economic management capabilities.

With the IMF no longer able to provide significant budget support in the short term, great pressure will be placed on the United States to increase ESF levels and on the IBRD to finalize the SAL quickly. Liberia will continue to face hard budgetary

decisions in order simultaneously to keep debt payments current, import oil, and pay Government salaries. In fact, during the concluding days of the military Government, it may be faced with politically unpalatable economic decisions that may not be taken unless there is strong and continuing support from donors.

Over the long term, a significant restructuring of the Liberian economy, including export diversification and increased import substitution, will be required if Liberia's economic base is to be broadened sufficiently to enable a return to the expansionary levels of the past. Most potential private sector investors (Liberian and foreign) are awaiting improvements in the economic picture and greater certainty about how the Liberian political framework will evolve before expanding their involvement. Liberia has unexploited potential, especially in agriculture, but also in mining, although the future of the latter remains a question. It may also have potentially exploitable oil reserves, exploration for which is underway, and Liberia has considerable potential for the generation of hydropower. Given the existing constraints to development, the needed restructuring will require major domestic and external resource transfers.

APPENDIX B

TECHNOLOGY TRANSFER

1. INTRODUCTION

This appendix examines the management implications of the technology transfer objectives of the projects. The underlying logic of the technology transfer (i.e., sector planning and necessary data collection and analysis techniques) and the sustainability, utility, and effectiveness of the technology are discussed, and the conclusion is reached that agricultural planning projects be designed and managed like applied research.

2. THE LOGIC OF THE TECHNOLOGY TRANSFER: DATA AND ANALYSIS FOR IMPROVED PLANNING

For the most part, these projects dealt with the transfer of technology relating to improved systems of information generation and use. This type of technology plays a key role in the development process. As is generally true of other types of management intervention, information links the technology packages (e.g., improved seed varieties, improved farm management practices) with policy formulation and program development. Policies and programs based on relatively accurate information about the sector should maximize the benefits obtained through more effective use of the technology packages. In turn, better information about the effects or results produced by the technology package should contribute to policy and program revision.

The overall objective of agriculture sector planning projects is to develop a master plan that will serve as the basis for rationalizing agricultural investment decisions. A thorough understanding of the socioeconomic factors affecting agricultural development is necessary to develop a sector plan. This typically entails conducting agricultural surveys and other types of data collection activities. The data are analyzed to gain insight into the workings of the sector (e.g., the economic efficiency of specific types of production). With a basic understanding of the key components of the sector, alternative uses of available resources are analyzed to determine which combination of activities will be most productive. This information is, in turn, used to formulate, or at least guide, policies about the sector. It is recognized that political and other types of considerations will influence and perhaps predominate in policy formulation. However, the information provided by data analysis is expected to have a significant impact on the decision-making process.

Once in place, the sector plan is used to direct agricultural development. Proposed projects are assessed for their economic soundness and consistency with the sector strategy. Data collected about the programs and projects undertaken are used to refine policies further or to modify them to accommodate changing conditions. The end result of the process is the maximization of returns from the optimum use of available resources. At the community level, this ultimately translates into improved well-being for the rural sector directly, as well as for the urban sector indirectly.

Obviously, this is a very idealized and optimistic account of what agriculture sector planning projects can be expected to achieve over the near or medium term. However, this type of reasoning runs throughout the original Project Papers of both projects. More important, the training and technical assistance provided to the Ministry of Agriculture (MOA) has certainly been expected to contribute to developing better information systems to support improved management of agricultural resources. It is fair, therefore, to question whether such an approach is reasonable given the Government's approach to public administration.

There are two basic assumptions implicit in agricultural planning projects. First, it is assumed that the institution operates with purposive rationality. The staff of the institution, from the most senior to most junior levels, recognize the overarching objectives of the institution. Collectively held values about the importance of achieving institutional goals provide the common reference point for all (or most) staff. Work is, therefore, directed toward accomplishing institutional objectives. This contrasts with an individualized rationality that places self-aggrandizement above institutional objectives, even at the expense of the institution's overall performance. The second assumption of planning projects is that economic rationality guides the institution. Decisions and policies are made, if not totally, then at least partially, on the basis of maximizing the economic return to the sector from the use of institutional resources. This contrasts with maximizing the return not to the institution or the sector, but to the individuals involved with making the decisions about resource use.

Clearly, no institution in any country is ever guided purely by purposive or economic rationality. However, recent studies of MOA's management systems (e.g., World Bank 1982) would support the argument that these two assumptions are, for the most part, not dominant within current ministry operations. A recent Government of Liberia/USAID study of MOA's management performance would strongly support this view. It might be concluded, therefore, that because the assumptions of agriculture sector planning projects are so out of step with the current reality, such projects are impractical and very likely to fail.

Information obtained for this study supports the contrary conclusion. The organizational culture and management systems of the Government of Liberia and the MOA often produce decisions about the sector that run directly opposite to the basic assumptions of the planning projects, but there are exceptions. It is important to realize that decision-making and planning suffer, at least in part, precisely because there has been no information base about the sector. If the data were available, the process might operate somewhat differently and more in line with the type of rationality implicit in planning projects. Moreover, changing the system of planning and decision-making is precisely the purpose of the projects--if all were well, then there would be no need for the project. A major conclusion to be drawn from the study of these projects is that the underlying assumptions of planning projects about decision-making and planning processes do not necessarily have to be in place at the outset. Rather, purposive and economic rationality should be viewed as management objectives for agriculture sector planning projects. These objectives should be advanced through a constant effort to demonstrate the utility of using data and analysis for more informed decision-making.

Information about the management interventions of these projects questions a second important component of the logic underlying agriculture sector planning. To a certain extent, planning projects create the impression that the systems and techniques to be developed will deliver the improvements envisioned by the project. Other things being equal, training, assistance from good technicians (i.e., advisers), and experience with these systems will produce the desired outcome. The history of the Agriculture Analysis and Planning Project and the Agriculture Development Program, however, suggests that the leadership provided by individuals in key management positions significantly affected what the project did or did not accomplish, regardless of the soundness or utility of the technology itself.

One of the key factors identified by those knowledgeable about the first project was the leadership provided during the course of the project by the Minister of Agriculture and one of the technical advisers. The minister was very supportive of the project and, at the same time, was a very effective and dynamic administrator. The technical adviser provided exceptional guidance and support, shaping recently trained technicians into an effective unit within the ministry. In short, the project was able to achieve some of its objectives because of the leadership provided by key actors.

The opposite conditions prevailed after the first project. Technical assistance was interrupted for 2 years at the expense of what had been achieved. MOA had four different ministers in as many years, and their support for the project varied from indifferent to negative. Other crucial factors also led to a

deterioration in the statistical and analytic capacity achieved during the first project. But the lack of steady support for the objectives of the second project at senior levels in the ministry and a shift of emphasis on the part of USAID advisers also contributed to the loss of statistical and analytic capability.

At present, the leadership factor appears to be working positively. MOA again has a minister who is supportive of the project and routinely makes use of the Planning Division. The Deputy Minister of the Planning Department is also an ardent supporter of the project and is greatly respected by his staff for his professionalism. The current technical assistance team members have refocused the project on the original objective of developing statistical and analytic capabilities. They have tried, for the most part, to provide professional role models for MOA staff in addition to offering assistance through an instructive mode.

The conclusion to be drawn is that leadership exerts a very definite effect on the viability of agricultural sector planning projects above and beyond the technology transfer. This is particularly important for projects that entail technical assistance that affects host country management systems. Because leadership is very much a personal attribute and not easily taught, it is largely beyond the control of a project. It is also very transient; project leadership comes and goes with the turnover of staff. But that is generally true for any other type of capacity or institution-building project and does not question the logic of undertaking planning projects in MOA. The record of these two projects simply repeats what has been observed about leadership in so many other instances: technology alone is not a sufficient management intervention.

3. TECHNOLOGY SUSTAINABILITY

The question of appropriate technology is central to a management assessment of these two projects. The principal concern is whether the technology to be transferred, developed, and adapted is sustainable, given the management capabilities of the recipient institution. For these two projects, the management concern is whether the statistical and analytic techniques and systems that have been incorporated into the operation of the Planning Department are capable of being sustained within the financial and human resources available to the unit.

To answer this question, considerable time was spent obtaining information about the work and products of the Statistics and Planning Divisions (this included observation of field operations). These projects appear to have accurately estimated the types of technical skills required to carry out the various

activities of their respective divisions. Training provided through the project and support from technical advisers have been instrumental in building capacity for such work. The current project has made a concerted effort to minimize recurrent costs created by the use of the technology. The technical requirements to collect agricultural data of reasonable accuracy and to conduct basic economic analyses appear to be increasingly within the capability of present staff with assistance or guidance from project advisers. Without that assistance, however, it is unlikely that the current quality and quantity of technical work would be sustained.

The reason behind this conclusion is not that excessive technical or financial demands are being created by the statistical and analytical techniques, but rather that these operations are currently difficult to maintain because of severe economic constraints that create a work environment unconducive to retaining professional staff (e.g., low salaries, limited opportunities for promotion, lack of incentives to produce quality work). Even meeting the costs of logistics for carrying out the agricultural survey would be difficult (or impossible) without the assistance of the current project. In short, this study has found no evidence that the technologies being advanced through either project are inappropriate for the Planning Department. In fact, the projects have followed a fairly conservative course in this regard. The methods, procedures, and techniques supported by the project are simple and low in cost to implement, yet sufficient to meet Statistics and Planning Division responsibilities. If the techniques and systems being promoted by these projects were beyond the capabilities of MOA, there would be no reason even to consider having a statistics or planning division. The problem lies not with the technology and its demands, but rather with the current dire economic situation of the Government.

An example that supports this argument is the system currently being used to collect agricultural production data. The current director and his staff have obtained adequate training over the years in the methods of collecting agricultural data, and several county statisticians have received comparable training. Field enumerators attend annual workshops to reinforce proper procedures and to explain changes or additions to the interview schedules. Quality control is exercised in part at the field level by the county statisticians and more thoroughly by the central office. Communication between county offices and the central office is maintained as far as resources permit. (This is exceedingly difficult, because there are no telephones or radios, and requires travel in from the field to the central office or out from the central office to the field; this occurs infrequently because of very limited budgets.) Data are tabulated by hand. In short, the simplest, yet marginally adequate methods and procedures are being used. The projects have not encouraged sophisticated techniques beyond the capabilities of

MOA staff, nor have they attempted to introduce expensive automated systems. Other examples of technologies appropriate to their context but limited by budget constraints are also available in the Planning Division.

What has to be recognized is that there really is no adequate, less expensive alternative that would fit within the budget of the Planning Department. What is being transferred through these projects is not state-of-the-art technologies, but rather the minimum necessary for a statistics or planning division to meet its responsibilities. For example, the Statistics Division must produce reasonably accurate estimates of crop production. That requires a sample survey that follows statistical standards as far as conditions and resources allow. Anything less would be a waste of time and resources. In short, the problem of sustainability lies outside of project control.

Where the current project could be questioned about the appropriateness of a technology is in the proposed development of an area frame sample to avoid the deficiencies inherent in a list frame. In brief, area sampling draws a stratified random sample of small geographic segments. Farms within the selected segments are surveyed (i.e., data about the farm is collected by interviewing, crop cutting, and so forth). The segments are delimited from aerial or satellite photography on the basis of geographically distinguishable boundaries. The complete set of these segments (i.e., the area frame) is the population from which the sample is drawn. The advantage of using the area frame sample is that it will provide higher quality data (i.e., greater accuracy).

On the one hand, the area frame sample would be a solution to the problems inherent in using the current list frame, which is known to be incomplete and, therefore, produces inaccurate estimates. On the other hand, the area frame would increase operating expenses. It would require additional training of enumerators in the use of aerial photography and probably greater motivation on their part to carefully identify segment boundaries on the ground from the aerial photographs. Finally, the area frame would have to be reconstructed periodically--depending on the rate of change, every 5 to 10 years--which requires advanced professional skills.

Given the advantages and disadvantages of moving to an area frame sample, it is unclear whether such a technique will be within the management capabilities of MOA and the Statistics Division. The project already has begun developing the area frame for Lofa County and has encountered serious difficulty in identifying segment boundaries on the ground from the photographs (taken in 1979 at a not very low altitude). Assuming a solution can be found to the technical problems (i.e, better photographs), the question remains whether the improvement in data quality obtained by shifting from the list frame to an area frame sample is sufficient to

ing from the list frame to an area frame sample is sufficient to justify the increased management demands that will be created by doing so. The danger is that the demands of area frame sampling will lead to a decrease in field performance by enumerators, which would offset the gains anticipated from the technique. In short, management demands (including cost) might be increased with little or no improvement in data quality.

To determine whether an area frame sample is currently an appropriate technology for Liberia, the project needs to explore (1) whether the current problems of identifying boundaries from the photographs can be solved and, if so, (2) whether the Statistics Division can use the technique with adequate proficiency. Assuming a solution to the technical problem, the key will be the performance of field staff. Brief observation of some of the enumerators at work and of their attempts to use an aerial photograph seem to warrant at least a pilot attempt to develop the frame in one county.

Considerable effort has been devoted to developing an area frame in Lofa County, and that effort could be continued as the pilot study for the project. This would permit experimentation with alternative ways of setting segment boundaries and the monitoring of enumerator performance to determine potential problems and any special training requirements. If the area frame approach were extended to other counties, the pilot study could serve as a training ground for more enumerators. The pilot study also could provide cost and life estimates (i.e., how long it would remain accurate) of the area frame. At the same time, current operations should be continued to guarantee that the Statistics Division produces its annual report. If the area frame approach proves unworkable, an effort should be made to improve the list frame.

Experimenting with the area frame approach is very much in line with AID's policy of providing appropriate technology. Continued support for developing an area frame does not constitute "throwing good money after bad"; rather, it is sound management of the existing investment USAID/Liberia has already made in improving MOA's capacity for data-related activities. If this were one of the Sahel countries, for example, where AID has comparatively smaller programs, then developing the area frame (or other information technologies that are a step beyond the bare minimum) would be a far more dubious undertaking.

The broader issue in this discussion of the area frame sample involves the special importance that appropriate technology has in the area of information generation and use. A conservative view of what constitutes appropriate technology would dismiss the area frame (or other seemingly sophisticated information technologies) as unsuitable for Liberia at this time, because it is too expensive and too demanding. Perhaps that will,

in fact, prove to be the case. However, it is crucial that efforts be continued to transfer any and all information technologies that are within the management capabilities of the country. The danger of the appropriate technology argument is that it is prone to myopic interpretations. In the area of information technology, that argument can easily degenerate into a Luddite mentality that will only widen the already existing gulf between developed and developing countries in their access to and use of information.

4. UTILITY AND EFFECTIVENESS OF THE TECHNOLOGY

The utility and effectiveness of the technology for the operations of MOA are central to an assessment of the management development aspects of the agriculture planning projects. The principal concerns here are (1) whether the technology has assisted the Planning Department to better carry out its responsibilities and (2) the degree to which the technology has improved the performance of the department and MOA.

How to make this assessment is problematic. One approach is to use the capabilities of MOA when the projects began as a baseline for comparison. However, this would give distorted results, because there was virtually no capability for such work at the outset (the approach would be biased positively). An alternative is to assess the performance of the Planning Department on the basis of external, objective criteria of how a fully functional planning office should operate. However, this would ignore the context in which the projects were implemented and in which the Planning Department must operate (the approach would be biased negatively).

Another approach is simply to focus on the current use and impact of the statistical and analytic products of these two units to indicate the utility of the technology to the Planning Division. The effectiveness of the technology can be assessed on the basis of the degree to which the technology influences MOA operations (i.e., whether the advice of the Planning Division is followed) or the degree to which a sector approach to planning influences decision-making.

4.1 Utility: Key Products

The most important product of the Statistics Division is its annual publication of agricultural production data. The division conducts a nationwide survey that produces various agricultural data: types of rice grown; rice yield; other types of crops; number of farmers producing a specific crop; household composition

and the work performed by each member; farming practices for rice and cassaba farms, including time of planting, fertilizer use, planting method, and use of improved seed varieties; size of current farm in comparison with the previous year; age of bush when the farm was started; and production levels of coffee, cocoa, rubber, citrus, and sugarcane.

The division issued an annual publication of agricultural production data from 1974 through 1978, but the series was interrupted in 1980 and 1981. With assistance from the current advisers to the Planning Department, the publication was again issued for 1982 and 1983. This annual report receives wide distribution to Government ministries including MOA, autonomous agencies, county and territorial superintendents, embassies, international organizations, educational institutions, and World Bank project staff. In 1976, the Statistical Handbook was produced by the Statistical Division based on the survey results. This too has been widely used by the same organizations that receive the annual agricultural production publication.

The utility of these documents cannot be overestimated. These are the only sources of reasonably accurate estimates of agricultural production for the country. A principal user is the Planning Division. However, the demand for the annual survey results outside of the department is so great that the Statistics Division does not have enough copies to meet all of the requests it receives. The 1976 Handbook also has been used extensively; it is still used as a basic reference book for Liberia even though it is now quite out of date. (The Statistics Division plans to issue another handbook next year.) In short, it is virtually inconceivable that any country could hope to make efficient use of its resources without basic data on the sector in which the majority of its population is employed. Obviously, this is one clear example of the utility of the technology provided by these two projects.

An analogous situation is found in the Planning Division--the technology has been extremely important for the operations of the unit. The Planning Division develops strategies to promote agricultural development, serving as the analytic center for the department and, in effect, for MOA overall. It has conducted feasibility assessments of proposed projects to determine their economic viability. For example, the division studied the potential economic effects of a road project, taking into consideration how these effects would vary with the distance of the community from the road. The Planning Division also provides briefing papers for MOA on specific topics. The utility of the division's work is clearly evident in the ad hoc demands the minister makes for information; although such demands interrupt work agendas, they also demonstrate MOA's reliance on the division's products and technology. Thus, the technology supported by the project--analytic techniques--appears to have had substantial utility.

An important consideration, however, is whether the improvement in operations is due to the staff's use of the technology or to the presence of the technical advisers. Undoubtedly, use of the techniques, procedures, and so forth within the divisions would degenerate without continued assistance from the advisers. On the other hand, it is equally clear that the current advisers are not quietly doing key pieces of work that create the illusion of actual improvement in carrying out division assignments. To the contrary, the current advisers have demonstrated considerable restraint in this regard, acting principally as instructors rather than simply doing the work themselves.

4.2 Effectiveness: Impact on Management

Even though the information technologies transferred through these projects have had considerable utility for the Statistics and Planning Divisions, there is little evidence that these improvements have had a significant effect on the overall management of MOA. A good example is provided by the communal farm project; 3 months of study led to the definite conclusion that the project was economically unsound. The division's advice was simply ignored and the project was implemented. The Planning Division's analysis was correct; the project failed. On the one hand, this example supports the view that the technology has benefited division operations (e.g., staff can perform cost-benefit analysis), but it also supports the position that the technology has made little headway in influencing decisions outside of the division.

However, there is one good example of the important role analysis has played in MOA activities. The Planning Division prepared a response for MOA to the World Bank's agriculture sector analysis, and Planning Division analysts attended a meeting with Bank representatives, serving as technical advisers to the ministry. Apparently, World Bank staff were impressed with MOA's response, which is a compliment considering the analytic resources the Bank can bring to bear on a problem. In short, it appears that the Planning Division has some opportunity, albeit limited, to use its technical capabilities to influence MOA operations.

Efforts to encourage MOA to adopt sector planning as its central mode of operation, however, amply support the view that the technology promoted by the projects has had a limited or negligible effect on management systems and decision-making. It is very unlikely that the current project will achieve this objective. An in-house workshop was conducted in the Planning Division in which staff worked on a sector strategy involving both program and organization planning. It was a useful training exercise, but it has not been accepted by senior MOA officials.

Both ministry and USAID staff report a disinterest in MOA for sector planning and no strong incentive within the Government for the approach. Others point out that sector planning is a new perspective for MOA and that, with the turnover of ministers in recent years, support for the approach understandably varies. In addition, the data base necessary for effective planning does not yet exist.

As a management intervention, it is fair to conclude that the sector strategy objective was unrealistic, because it would have entailed profound reorientation in MOA management procedures, particularly for decision-making. However, sector planning was a useful vehicle for providing essential technical assistance to the Statistics and Planning Divisions. The projects' sector planning objective also allowed for flexibility in project implementation. Apparently, an unanticipated benefit of the second project was that it provided support during a period when support was not forthcoming from within the ministry itself. In this way, the project has been instrumental in maintaining the existing statistical and analytic functions over time. Furthermore, although the capabilities of the Planning Department appear rudimentary by rigorous standards, in comparison with other Government ministries, such as the Agriculture Division of the Ministry of Planning and Economic Affairs, the Statistics and Planning Divisions of MOA are considerably stronger. Finally, it should be noted that, purely operational considerations aside, the effort to develop sound data bases and analytic capabilities within MOA is strategically wise. At the very least, this placates donor demands for efforts to improve planning and resource management. Beyond that, it might prove to be an incentive for greater investment in the sector.

5. CONCLUSION: MANAGING AGRICULTURAL PLANNING AS APPLIED RESEARCH

One of the major accomplishments of the Agriculture Analysis and Planning Project was the provision of a base of support to the Statistics and Planning Divisions during years when such support was not provided by MOA (either because of lack of interest or an inability to do so). Several members of the Planning Department observed that capabilities for data-related activities would be even more limited had the project not been able to provide essential support in these areas. This very important contribution was not predicted as an output of the project. More important, Planning Department and USAID staff linked this effect directly to the flexibility with which the project was implemented.

This lesson combined with the heavy emphasis on data collection and analysis of agricultural planning projects suggests that

they should be treated as a type of applied research; that is, as a process that begins with some general objectives and a set of problems in need of answers. Precisely what will be done during the course of the research effort and precisely what will be produced is not known in advance. But that is the nature of research: you know where you want to arrive and what you want to accomplish, but how to do it is an open question. The aim of research is to fill in such "unknowns" by generating information to identify possible solutions and make better decisions. It is critical that the research activity be managed on a flexible basis so that, as findings become available, the information provided can be used to guide subsequent stages (i.e., whether to expand, modify, or stop a particular line of research).

In an analogous fashion, agricultural planning projects require flexibility in implementation. The objectives of the project are understood (e.g., developing agricultural data bases, developing a sector strategy), as are the means for doing so (e.g., data collection and analysis). What is less clear is precisely what types of studies are needed and where the information obtained from these studies will lead. To maximize the utility of that information, the implementation of the project must allow for initial open-endedness and frequent redirection of activities.

The flexibility required in applied research is counterbalanced by the structure provided through a "mechanism" (a set of procedures or an organization) that filters proposed research and selects that which is consistent with project objectives. This mechanism prevents the flexibility in implementation from causing the project to degenerate into ill-defined vagueness and directionless trial and error. The mechanism serves to coordinate activities, promote the progress of research, and aid in the evaluation of the utility of what is produced. The role of a management system for agricultural planning projects is analogous to the role of a controlling mechanism in applied research.

Managing either applied research or agriculture planning projects is largely an exercise in managing uncertainty. There is no guarantee that either activity will finally resolve all the critical problems. In short, agricultural planning projects are high-risk activities that, if successful, offer a high payoff.

However, there is a "Catch-22" to data-related activities in developing countries, particularly for those confronting severe economic hardship. A country can afford only so many bad decisions, and the smaller and poorer a country, the fewer of these bad decisions it can afford. For an increasing number of African countries, that limit has been reached. Decisions have to be more judicious, more likely to be correct. That, of course, requires making informed decisions which, in turn, requires having the information to do so. Yet the very countries most in need of

better data and information are the ones that can least afford the cost of obtaining them.

This contradiction between the need for data and the ability to collect it is central to agricultural planning projects. Their high risk makes them a very difficult or dubious activity for a developing country to support. It is equivalent to betting this month's rent money on a horse race. Although the host country might not be able to afford the luxury of investing its very limited resources in anything other than a sure thing (or as close to one as can be found), AID routinely gambles on high-risk activities. In short, long-term and continuous support for building a capacity for data-related activities in the agriculture sector should be viewed by AID as providing the risk capital the host country cannot afford.

APPENDIX C

ORGANIZATIONAL/INSTITUTIONAL ARRANGEMENTS AND ADMINISTRATIVE OPERATIONS

1. INTRODUCTION

Since 1972, USAID has provided technical assistance and training support to the Ministry of Agriculture (MOA) through two successive projects, the Agriculture Development Program and the Agriculture Analysis and Planning Project. The broad objectives of both projects were to develop institutional capabilities in data collection and analysis, sector assessment and planning, and project appraisal and review. The results of project assistance are intended to be more informed decision-making with reference to investments made in the sector as a whole.

Previous Page Blank

period of USAID assistance, resources available
ning have increased significantly. The Planning
Department staff has increased from 1 in 1971 to 138 today, and the department's budget has grown to $582,193 in FY 1984/1985, representing approximately 12 percent of total ministry allotment. A total of 24 employees of the Planning Department have received advanced degree training through the projects; approximately another 30 have attended short courses in the United States; many others have participated in various forms of on-the-job training. Among those who have completed degree programs or short courses, 12 are currently employed in the Planning Department, in other departments of MOA, and in positions outside the ministry but in the agricultural sector. The first statistical handbook for agriculture was prepared in 1976, and annual rice crop estimates have been published for 8 of the last 10 years. A sector analysis is being prepared and is expected to be completed this year. In addition, advisers assigned to the project in 1978-1982 assisted in preparing a policy framework and organization plan for the ministry.

In summary, project assistance has contributed significantly to increasing the level of planning resources available to the MOA. "Level" here refers to the organizational stock or potential that is available to MOA. To incorporate these resources--this potential--into the decision-making process, appropriate organizational arrangements and management capabilities need to be present. That is, consideration should be given to what management arrangements and capabilities are necessary to make sector planning work.

This section examines some issues involved in integrating planning activities into the MOA decision-making process. In effect, the concern is with what is involved in making planning

Previous Page Blank

an ordinary (as opposed to an extraordinary) part of MOA operations. The purpose is to attempt to show how the project contributed to this objective.

This is obviously a broad area; to adequately cover it would require examining decision-making processes throughout MOA, as well as between MOA and more than 20 other agencies involved in agricultural development. This is well beyond the scope of the present study. Instead, the study examines selective issues in a summary way.

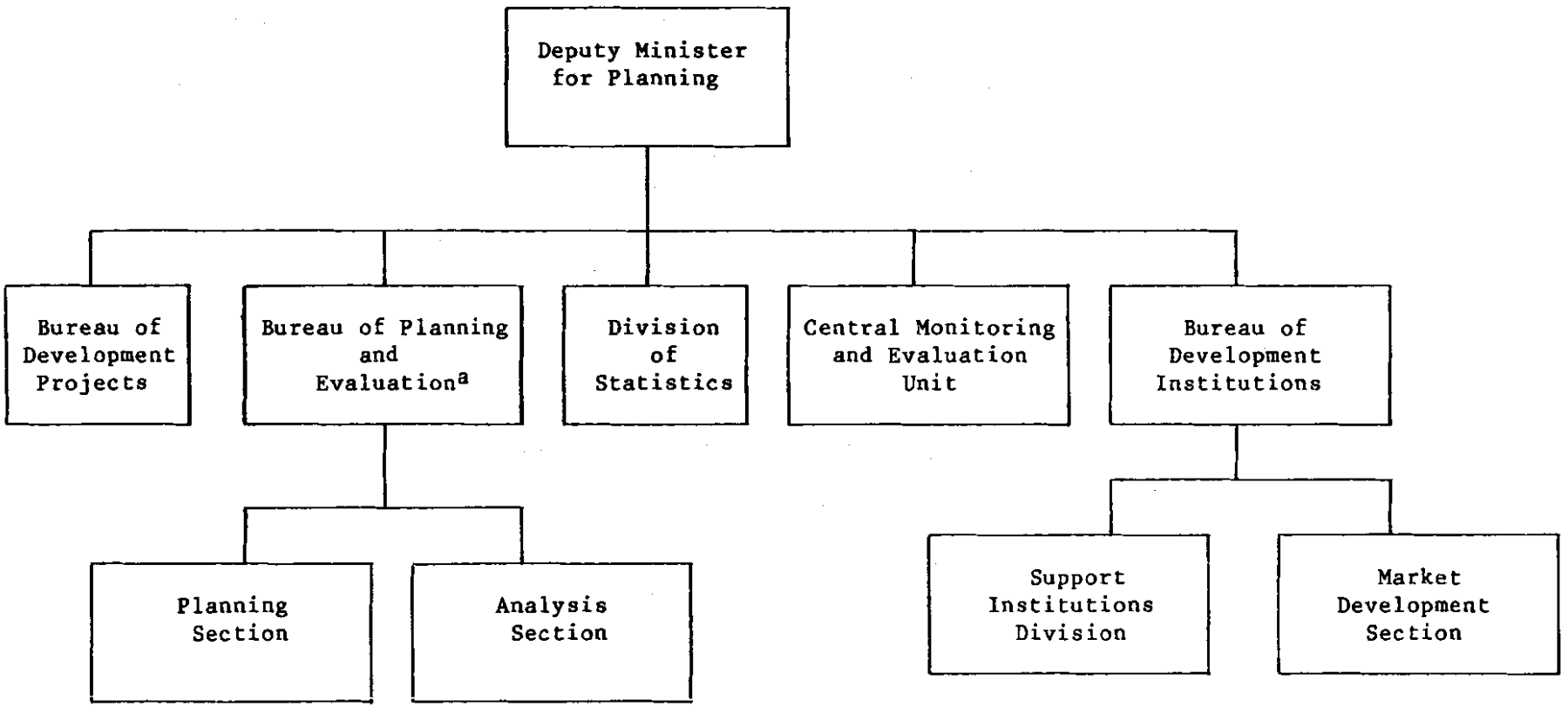
2. MANAGEMENT IMPLICATIONS OF SECTOR PLANNING

A sector approach to planning involves extensive and well-managed coordination among departments and agencies responsible for data collection and analysis, policy formulation, program and project development and implementation, and monitoring and evaluation. Functions need to be defined and interconnected within an overall planning structure that is adequately staffed and supported administratively and financially. In short, sector planning is management intensive.

The Planning Department is formally charged with responsibility for carrying out these functions for the agricultural sector. Organizationally, the Planning Department is presently structured into three bureaus responsible for coordinating the activities of parastatals (Bureau of Development Projects), monitoring and upgrading agricultural services (Bureau of Development Institutions), and analyzing policy and program options (Bureau of Planning and Evaluation). In addition, the department includes two special units: the Division of Statistics, responsible for data collection and statistical analysis, and the Central Monitoring and Evaluation Unit, responsible for monitoring and evaluating ongoing programs. (See Figure C-1 for an organization chart of the Planning Department.) The department is directed by a Deputy Minister and has a staff of 138.

The rationale for the AID planning projects is that much of the agricultural development in Liberia has been built around individual projects. This orientation has led to uncoordinated, overlapping, and, at times, contradictory activities. The purpose of the projects, therefore, was to create a capacity that would permit more informed decisions to be made about alternative activities, based on a better understanding of the development potential and resource base of the sector as a whole. In effect, the projects ultimately were intended to bring about a reorientation of agricultural development policies.

Figure C-1. Organizational Structure of Liberia's Planning Department



[a]Sometimes called the Planning Division.

Although not explicitly anticipated in the project designs, changes in broad policy objectives often necessitate corresponding redefinitions of the existing organizational structure and management operations. The objective is to align the organization to the requirements necessary to carry out policy objectives. Beginning in 1978, this objective increasingly became the focus of project assistance. In effect, the advisers began to encourage the management staff of MOA to look to the longer term issue of organizational capacity to execute the planning capacity that was the original objective of the projects. The period between 1978 and 1980 appears to have been marked, in turn, by initial resistance, growing awareness, and energetic support on the part of ministers and some members of the ministry's senior staff for defining a new policy and structural framework. It resulted, in 1980, in the publication of Liberia's Agricultural Development: Policy and Organizational Structure (the "Bluebook").

During this period, the role and activities of the project advisers shifted significantly. They increasingly came to assume principal advisory roles on policy and operational matters related to the ministry as a whole. To the extent that project assistance continued in the Planning and Statistics Divisions, it was provided primarily through short-term technical consultants. This situation continued after the sudden change of government in April 1980 and continued through 1982, when new advisers arrived.

In retrospect, one can discern three distinct periods of project activity: technical skills development (1972-1978), organizational restructuring (1978-1982), and consolidation and the beginning of integration (1983-present). These are useful reference points when examining the impact of project activities on the current capabilities of the Department of Planning to manage planning activities. This report focuses on the last two periods, because much of the technical capacity established during the initial period significantly deteriorated beginning in 1978-1979, and the project had to regain what was lost.

3. ORGANIZATIONAL RESTRUCTURING

It can be argued whether it is analytic foresight or external crisis that brings about basic organizational changes. Experience probably sides with the latter. This is undoubtedly the case with public institutions almost anywhere in the world. The question is a relevant one to raise in looking at the planning assistance projects. It is easy to recognize some of the organizational and management implications of reorienting development policies, particularly when policy decisions and specific project actions emanate from central authorities and are aimed at meeting political as well as economic and social objectives. The preferred response in such situations is to seek broader partici-

pation through decentralized planning, not only to ensure that activities meet clearly defined needs but, equally important, to reduce the management demand on already overextended central agencies. Experience shows, however, that such responses are extremely difficult to put in place or sustain. It is highly unlikely, therefore, that the planning assistance projects could have adopted organizational restructuring as an objective. What is useful to examine, then, is what factors have influenced the beginning of a reorganizational process and where this has led in terms of current planning capabilities.

In addition to the advisers' almost immediate conclusion that the "readiness of the Ministry of Agriculture for the Agriculture Analysis Project, as designed, had either been overestimated or the situation had deteriorated after the project was designed,"[1] other factors appear to have played deciding roles. Almost simultaneously with the initial assessments, the economic and political environment of the country entered a period of rapid change. Government agencies were faced with substantially reduced funds when attention focused on preparations for the Organization of African Unity meeting. As a result, there was considerable staff turnover within MOA. Support for pursuing the reorganizational efforts appears to have risen and fallen during this time, depending on the leadership provided by senior ministers ("champions," in current parlance).

Beginning in late 1978, the effort received the energetic support of the minister, and the advisers prepared a first draft of a proposed policy and structural reorientation. The effort appears to have continued following the sudden change of government, but at a lower level of priority. With preoccupations obviously elsewhere and frequent changes in key ministry positions, a vacuum was created. As much as anything, this situation at least allowed the agenda to remain on the table. Activities in the Statistical Division were essentially dormant. The advisers continued to be involved primarily in ministry (as opposed to Planning Department) guidance, including playing a major role in preparing the budget. Some efforts were made at this time to introduce the proposed reorganization through seminars and linkages with other institutions.

This period of project assistance was one of rapid change, uncertainty, and hesitation in decision-making. Leadership obviously played an important role, but so did preoccupations with affairs outside MOA. In such a setting, little attention could be given to longer term strategic planning. The agenda remained on the table, but clearly it was not an environment in which changes could easily be implemented.

---

[1]Project Advisers, "Summary Progress Report."

It is important to note that, although the proposed reorientation remains under apparent consideration, it has not been officially approved by MOA or those outside the ministry who perhaps play a more deciding role in major policy deliberations. The Bluebook remains on MOA desks, is referred to, and has been characterized as a good framework; it is not, however, a part of Government of Liberia policy. To this extent, it has become operative within MOA, and the current organizational structure conforms, in large part, to the proposed framework.[2]

4. BEGINNINGS OF INTEGRATION

The project currently appears to be taking a more balanced approach to building technical experience while reorganizing many of the organizational issues of implementation. The economics adviser has defined and appears to be effectively implementing his role as adviser to the Deputy Minister for Planning. A statistics adviser arrived at the beginning of the year, and his contribution to the Statistical Division appears to have been almost immediately felt. The economics adviser is presently assisting in the preparation of a senior management workshop scheduled for March 1985 that will include discussions about planning policies and organizational arrangements among MOA and other agency officials involved in agricultural planning. This appears to be an appropriate way of resuming discussions about policy and implementation issues.

Efforts that go beyond providing essential, day-to-day, technical assistance will continue to be severely constrained by the limited finances available to MOA and the even more limited funds available for program activities. This presents a situation in which the implementation of planning activities will be increasingly dependent on donor assistance.[3] Such assistance can provide essential resources for much-needed investments in the sector, but it also has the potential for creating adverse effects as well. At this time, clearly defined policy objectives for agricultural development do not exist, nor can it be assumed that such policies will emerge in the near term. This situation, combined with the deteriorating financial situation, often places planners and managers in a position of reacting

---

[2]Ministry officials have indicated their intent to resubmit the organizational and policy framework to the Government for official endorsement.

[3]External assistance for agricultural development totals $37.9 million, the majority of which is provided by the World Bank for area development projects.

rather than initiating, and of focusing on short-term, stop-gap solutions rather than on longer term strategic plans. If this situation continues, MOA may revert to a mode of operation in which projects, in effect, define agricultural policies. In this situation, there is also a strong inclination on the part of many donors to encourage policy adjustment. Few seriously involved planners in the Liberian Government would argue against the need for change in many areas. However, in the present circumstances, strong leverage should be combined with activities that help to ameliorate any sudden, negative effects of serious attempts to redefine complex policy issues. Efforts to reduce obvious over-staffing in some areas, for example, ought to be combined with activities that generate employment elsewhere.

For MOA itself, the present situation suggests that considerable attention should continue to be given to primary data collection and analysis, combined with whatever efforts are possible to manage its limited resources efficiently. (MOA is taking steps in this direction by reducing rents.) Both endeavors, it is argued, would contribute substantially to attracting further donor investments in the sector. Donors, in turn, should seriously examine ways in which they can respond to MOA requests for further assistance in these two areas.

5. A SUMMARY LOOK AT THE DEPARTMENT OF PLANNING TODAY

The projects have had a substantial impact on management issues associated with implementing sector planning. If nothing else, the projects have accomplished two important things. First, they have raised the issue of the management implications of establishing planning as an integral part of MOA operations, as opposed to creating a separate resource. Second, the projects have helped to define (some would say impose) a framework to which MOA can now react and use in ways it feels appropriate to channel work responsibilities into a sectoral planning structure --to use the Bluebook as a springboard for defining its own policy and structural arrangements.

What, then, can be concluded about MOA's experience with the projects? First, it is apparent that reorienting planning strategies requires both technical capabilities and organizational and management arrangements that permit these technical resources to be integrated and utilized in ongoing operations. This happened in the two planning assistance projects, but it was not anticipated. In part, management issues came to be addressed because project assistance was interpreted by USAID, contractors, and MOA as a resource and not a rigid blueprint. Considerable flexibility was permitted in adjusting activities based on experience as well as a changing project environment. Changes in the project environment provided unanticipated opportunities to influence

management and organizational arrangements. These changes, combined with leadership initiatives in proposing a broad organizational and policy framework, contributed to defining planning as an integral part of MOA operations.

Second, although the proposed organizational and management arrangements are being incorporated into MOA operations, the capacity to manage sector planning is currently very tenuous. A long-term process will be required to continue to develop appropriate staffing patterns, management skills, and administrative procedures within MOA to implement sector planning fully. Further efforts will be necessary to link efforts within the ministry to the activities of parastatals, special project agencies, and research and training institutions involved in agricultural development.

Finally, the planning activities begun within MOA will require further support by donors, both in strengthening the existing capacity and in relating their project activities to the sector priorities that emerge from MOA planning activities.

APPENDIX D

STAFF DEVELOPMENT

1. OVERVIEW

As defined in the recently approved "AID Africa Bureau Development Management Assistance Strategy Paper," development management "is a process by which resources available to developing countries are organized and used to achieve specific development objectives." The Agriculture Analysis and Planning Project and its predecessor, the Agriculture Development Program, were designed to strengthen the capabilities of the Planning Department of the Ministry of Agriculture (MOA). A major component of both projects provides for long- and short-term training in statistics and economics to increase staff capacity for agricultural planning and analysis.

Essentially designed as institution-building activities, the projects have not yet attained their goal. However, it is remarkable that the activity has progressed as far as it has in view of the number of constraints with which it has been faced.

Frequent changes in MOA senior ranks, the coup d'etat in April 1980, and a desire for higher level jobs caused a critical number of the first group of returned U.S. participants to leave the Planning Department for other positions. Nonetheless, those who have remained constitute a significant proportion of graduate degree personnel in MOA. Moreover, as one participant pointed out, most of those who did leave the Planning Department are still working in the agricultural sector. This means that participant skills are being utilized, although not necessarily in the immediate office which the project was designed to improve.

This appendix discusses principally the training aspects of the Agriculture Analysis and Planning Project, focusing on two main concerns:

1. Whether the training provided has contributed to increased capacity of the Planning Department to carry out its planning, project analysis, and data gathering activities

2. Whether sufficient management training has been provided to improve overall management performance throughout the Planning Department

2. TRAINING PLAN

The earlier Agriculture Development Program provided U.S. training for some 15 participants at the M.S. level. At least 16 more participants were provided with short-term training in the United States. In addition, the Project Paper for the original project provided specifically for (1) on-the-job training for MOA Planning Department personnel in broad sector analysis, including intensive training in microeconomic analysis; (2) on-the-job training in the production of crop statistics and in the collection and utilization of field survey data; (3) on-the-job training in the preparation and appraisal of development documents; and (4) in-country seminars on project evaluation. The areas of training for participants were chosen to create a balanced department with the capacity to produce statistical data, carry out economic studies, and prepare and evaluate development projects. As an example, one participant was selected for training in both agricultural economics and law so that he could contribute to the solution of institutional problems, including those related to land tenure.

The follow-on Agriculture Analysis and Planning Project and its subsequent amendments provided U.S. training for 9 more graduate degree participants and nondegree technical training in the United States for 10 participants. The Project Paper specifically provides that "the program will be structured to allow flexibility in the determination of training requirements and program content." It also stipulates that the technical advisers, together with MOA, "will be responsible for the final identification of specific skills needed to consolidate the Planning Division's capability."

The 6- to 10-month nondegree training programs were to include public administration, management, agricultural development, and statistics, as well as practical training at African sites such as the Pan African Institute of Development (PAID) in Cameroon. In addition, in-house seminars were to be held by the U.S. Department of Agriculture Training Office, by local or third-country training institutions, or by private contractors. The most recent amendment of the project also provides for 1 year of training in management. Although this has been postponed by the deputy minister because of staffing constraints, a nomination tentatively was to be made in January 1985. The amendment further provides that short-term trainees will assist in presenting in-house seminars on their return.

The Agriculture Analysis and Planning Project has placed particular emphasis on training in the skills required to strengthen the capacity of the Planning Department of MOA. Management improvement is also essential to the success of an institution-building activity such as this one. Greater atten-

tion should have been given to management training throughout the project's documentation. Such training is vital, although it is not the sole requirement for improving the overall management capacity of the Planning Department. The Africa Bureau "Development Management Assistance Strategy Paper" states that

> Efficient and productive management of human and material resources requires the application of appropriate techniques to solving problems as well as the long-term institutionalization of these methods to ensure effective management after external support has ended.

Increased emphasis on management training at all levels would help to strengthen the Planning Department. An evaluation of the earlier Agriculture Development Program prepared by Robert Nathan Associates in December 1976 notes that "improved management capability throughout the MOA would undoubtedly strengthen the Planning Division's effectiveness in monitoring project implementation." It also refers to the Liberia Institute of Public Administration (LIPA) as a possible resource for training in management.

LIPA, established with AID support in 1971, was intended to be the central training, research, consulting, and information facility for public service in Liberia. LIPA has never become a first-rate institution. It has suffered from poor leadership, lack of political support, and, finally, the withdrawal of AID assistance.

An International Labor Organization/United Nations/LIPA performance improvement project has recently been planned. The project will address the operational needs of line agencies of the central Government and develop work planning and process skills.

The use of indigenous institutions for management as well as other kinds of training is desirable. The AID Africa Bureau "Development Management Assistance Strategy Paper" comments that

> An appropriate mix of capacity building in management should include long- and short-term technical assistance in specific management areas, a maximum of in-country training, short- and long-term training, and collaborative research with indigenous organizations such as management institutes.

Political conditions at the present time, however, make it impossible to use LIPA or the recently closed University of Liberia for training programs. The latter facility has supplied the majority of qualified candidates for graduate degree training in the Planning Division of MOA. Its continued shutdown cuts off the principal source of new professionals in the MOA Planning Department and future candidates for graduate degree programs.

Cuttington is an alternate source, but as a smaller institution it provides fewer candidates.

Selection of candidates for training in the Planning Department has been carried out by two committees. The committee for the Training Division includes the deputy minister, the assistant deputy minister, and the AID adviser. The Statistics Division committee includes the director of the Statistics Division and the statistics adviser, whose decisions must be approved by the deputy minister and the AID adviser. The Training Bureau of MOA is not involved in the selection process. Participants selected must sign an agreement to return to work for MOA for 2 years for each year of training.

3. ADMINISTRATIVE CONSTRAINTS

Subsequent to the coup d'etat in 1980 and as a result of economic conditions, there has been some deterioration in administrative support for MOA. Planning Department officials carry out their responsibilities with inadequate communication facilities, little or no office supplies, and woefully inadequate vehicle and maintenance support. Employees have been working since August without pay. Although salaries were raised after the coup, there have been several salary cuts since then. A number of those interviewed were concerned that they did not have formal job descriptions. There is no regular promotion policy. All of these considerations reflect directly on the civil service system, which is in need of reform. There are few incentives other than the possibility of short- or long-term training which will provide qualifications for promotion when the opportunity arises.

4. STAFFING POLICY AND MANAGEMENT STYLE

The Planning Department currently comprises approximately 37 senior staff, 105 support staff and enumerators, and 5 employees away on training. Observation and interviews indicate that there is some need to use the available skills more effectively. According to one participant who was formerly in the Planning Bureau, there is insufficient supervision, and no opportunity exists for staff discussions. Several participants who were interviewed observed that too much was done on an ad hoc basis. A number of participants with M.S. degrees in agricultural economics stated that they did not feel adequately equipped for their new responsibilities and felt a need for specific training in project analysis. Some training might be provided for certain technical personnel who wish to earn an undergraduate degree. Maximum utilization of available skills and the upgrading of others contribute to a more efficient unit with a higher morale.

Leadership is an important administrative skill. It is evident that the current deputy minister in charge of the Planning Department looks favorably on training opportunities for his staff. He is regarded as a good manager and is highly respected. Previously director of the Statistics Division and a former training participant, he has had a relatively long association with the Planning Department. He has given evidence of strong commitment to the AID project goals.

It is also clear that the leadership style of the project adviser has considerable influence on the day-to-day functioning, morale, and motivation of the host country staff.

5. CONCLUSIONS

The evolution of an efficient planning unit within MOA has been slowed down by a combination of factors, including the Liberian civil service system, the 1980 coup d'etat, and adverse economic conditions. Despite these factors, however, the training provided has increased the capabilities of the Planning Department. Some management training for all long-term participants would be beneficial. Additional on-the-job and short-term, in-country training at all levels would help to increase management performance throughout the Planning Department.